

000011

....





2. ULUSLARARASI ACIL TIP ve AILE HEKIMLIĞI SEMPOZYUMU

KARDİYAK ACİLLER KURSU
 PEDİATRİK ACİLLER KURSU

15 - 18 Mart 2018 President Otel - Kiev/Ukrayna www.iefmsymposium.com

BİLDİRİ KİTABI

Sempozyum Tarihi 15-18 Mart 2018 Sempozyum Yeri Kiev / Ukrayna Sempozyum Dili Sempozyum dili Türkçe ve Ukraynaca'dır.

Organizasyon Komitesi Ukrayna Doktorlar ve Eczacılar Sürekli Eğitim Derneği Acil Tıp Uzmanları Derneği Trabzon Aile Hekimleri Derneği

Destekleyenler T.C Kiev Büyükelçiliği Ukrayna Sağlık Bakanlığı Ukrayna Kardiyologlar Derneği Ukrayna Ambulans Çalışanları, Acil Tıp ve Doğal Afet Tıbbı Derneği MAS Ukrayna Ukrayna Ulusal Medikal Bilimsel Akademisi Shupyk NMAPE Kadın Hastalıkları ve Doğum, Perinatoloji Bölümü Shupyk NMAPER Acil Tıp Bölümü KTÜ Tıp Fakültesi Aile Hekimliği Anabilim Dalı Mersin Üniversitesi Tıp Fakültesi Aile Hekimliği Anabilim Dalı Aile Hekimleri Dernekleri Federasyonu (AHEF) Sempozyum Başkanları Prof. Volodymyr Kovalenko Prof. Dr. Yuriy Vdovychenko Prof. Dr. Ivan Zozulia Prof. Dr. Başar Cander Dr. Hakan UZUN

Sempozyum Genel Sekreterleri Dr. Canan TANRIVER Yrd. Doç. Dr. Abdullah Osman KOÇAK

> Sempozyum Web Sayfası www.iefmsymposium.com

> > **Organizasyon** ETHICCON

Proje Müdürü Gamze POYRAZ

Sempozyum Oteli President Otel

* 2. Uluslararası Acil Tıp ve Aile Hekimliği Sempozyumu, 15-18 Mart 2018, Kiev, Ukrayna

Sempozyum Bilimsel Kurulu

Dr. Abdullah Osman KOÇAK (Türkiye) Dr. Ahmet AK (Türkive) Dr. Ahmet Kenan TÜRKDOĞAN (Türkiye) Dr. Antypkin Yuriy GENNADİEVİCH (Ukrayna) Dr. Ayça ÇALBAY (Türkiye) Dr. Ayten ALİEVA (Azerbaycan) Dr. Başar CANDER (Türkiye) Dr. Behçet AL (Türkiye) Dr. Beketova Galyna VOLODYMYRİNA(Ukrayna) Dr. Bezditko Natalia VOLODYMYRİNA (Ukrayna) Dr. Burak KATİPOĞLU (Türkiye) Dr. Canan TANRIVER (Türkiye) Dr. Dolzhenko Marvna MYKOLAYEVNA (Ukrayna) Dr. Dubrov Sergiy OLEKSANDROVYCH (Ukrayna) Dr. Elif ATEŞ (Türkiye) Dr. Ertan MERT(Türkiye) Dr. Gogunskava Inna *VOLODYMYRİVNA(Ukrayna)* Dr. Hakan OĞUZTÜRK(Türkiye) Dr. Hakan UZUN (Türkiye) Dr. Irkin Oleg IGOROVİCH (Ukrayna) Dr. Ivan ZOZULİA (Ukrayna) Dr. Ivashchenko O.V.(Ukrayna) Dr. Kovalenko Volodymyr MYKOLAYEVYCH (Ukravna) Dr. Lutay Yaroslav MYHAİLOVYCH (Ukrayna) Dr. Maximenko Mykhajlo VASYLOVYCH(Ukrayna) Dr. Mehmet GÜL (Türkiye) Dr. Mehmet Nuri BOZDEMİR (Türkiye)

Dr. Mehmet OKUMUŞ (Türkiye) Dr. Murat Fazil SOYAL(Türkive) Dr. Nikonov Vadym VOLODYMYROVYCH(Ukrayna) Dr. Netijzhenko Vasyl ZAHAROVYCH (Ukravna) Dr. Ostrapolets Natalia ANDREEVNA (Ukrayna) Dr. Oğuzhan ÖZCAN(Türkiye) Dr. Oleksandr LİNCHEVSKYY (Ukrayna) Dr. Parhomenko Alexander MYKOLAYEVYCH (Ukrayna) Dr. Rogov Volodymyr ANATOLİYOVYCH(Ukrayna) Dr. Selyuk Mariana MYKOLAYEVNA (Ukrayna) Dr. Sirenko Yurij MYKOLAYEVYCH (Ukrayna) Dr. Slobodin Tetiyana MYKOLAYEVNA (Ukrayna) Dr. Sychov Oleg SERGİJOVYCH(Ukravna) Dr. Teona VARSHALOMİDZE (Gürcistan) Dr. Tolstanov Oleksandr KONSTANTYNOVYCH (Ukrayna) Dr. Turan SET (Türkiye) Dr. Ulana SUPRUN(Ukrayna) Dr. Volodymyr KOVALENKO (Ukrayna) Dr. Volosovets Anton OLEXANDROVYCH (Ukrayna) Dr. Vusale YAŞAR(Azerbaycan) Dr. Yavuz KATIRCI (Türkiye) Dr. Yahya Kemal GÜNAYDIN (Türkiye) Dr. Yunsur ÇEVİK (Türkiye) Dr. Yuriy VDOVYCHENKO (Ukrayna) Dr. Yücel UYSAL (Türkiye) Dr. Zeynep CAKIR(Türkiye) Dr. Zozulya Andriy IVANOVYCH(Ukrayna)

Dr. Zozulya Ivan SAVOVYCH(Ukrayna)

Teşekkürlerimizle... Yönet Can TEZEL T.C. Ukrayna Büyükelçisi

Dr. Oleksandr LİNCHEVSKYY Ukrayna Sağlık Bakanlığı Bakan Yardımcısı

Av. Halil ŞEN

T.C. Sağlık Bakanlığı Türkiye Halk Sağlığı Genel Müdürlüğü Hukuk Daire Başkanı

Yavuz ATEŞ

T.C. Sağlık Bakanlığı Türkiye Halk Sağlığı Genel Müdürlüğü Bütçe ve Projeler Daire Başkanı

İÇİNDEKİLER

Bilimsel Program	_ 2
Poster Bildiriler	11
Sözlü Bildiriler	23
Tam Metin Bildiriler	45
Konuşma Özetleri	51

BILIMSEL PROGRAM

15 MARCH 2018, THURSDAY

Time	Subject and Speakers
14.00 - 18.00	Entering the Hotel
	Opening and Opening Speeches
	Prof. Başar CANDER Chairman, Emergency Medicine Physician Association of Turkey; Head of The Department of Emergency Medicine, Meral Faculty of Medicine, Necmettin Erbakan University
	Prof. Yuriy VDOVYCHENKO Chairman, Ukrainian Association for the Continuous Training of Doctors and Pharmacists; Member, National Medical Scientific Academy of Ukraine
	Hakan UZUN Chairman of Trabzon Family Physicians Associations, AHEF General Secretary
19.30 - 21.30	Burak PEHLIVAN Head of International Turkish Ukrainian Businessmen Association
	Abdo KHOURY MD., MPH, MSc DM Vice president, European Society for Emergency Medicine (EuSEM) Vice president, International PanArab Critical Care Medicine Society (IPACCMS)
	Dr. Ulana SUPRUN Vice Minister, Ukraine Ministry of Health
	Halil ŞEN First Legal Counsel of Public Health Care, R.T. Ministry of Health
	Yönet Can TEZEL R.T. Ambassador in Kyiv
21.30 - 24.00	Opening Cocktail

16 MARCH 2018, FRIDAY – HALL A

Time	Moderator	Time limit	Subject and Speakers							
									09.00 – 09.10	Turkey-Ukraine Primary Health Services and Family Physicians Symposium Prof. Turan SET Head of the Department of Family Practice, Faculty of Medicine, KTÜ
		09.10 - 09.20	Hakan UZUN General Secretary, AHEF							
	Prof. Yuriv VDOVYCHENKO	09.20 - 09.30	Yavuz ATEŞ Head of Bugdet and Project Department, Public Health Care, R.T. Ministry of Health							
09.00-10.00	Prof. Ivan ZOZULIA Asst. Prof. Elif	09.30 - 09.40	Halil ŞEN First Legal Counsel of Public Health Care, R.T. Ministry of Health							
	ATEŞ	09.40 - 09.50	Ulana SUPRUN Vice Minister, Ukraine Ministry of Health							
		09.50 – 10.00	Ways to increase the effectiveness of continuous professional development of family doctors and emergency medicine Prof. Yuriv VDOVYCHENKO Chairman, Ukrainian Association for the Continuous Training of Doctors and Pharmacists; Member, National Medical Scientific Academy of Ukraine							
10.00-10.15			Coffee Break							
	Prof. Mariana SELIUK Dr. Canan TANRIVER				10.15 – 10.30	Management of Diabetes at Family Health Centres Prof. Ertan MERT Mersin University Faculty of Medicine Family Practice Department				
		10.30 – 10.45	Asst. Prof. Oğuzhan ÖZCAN Mustafa Kemal University Faculty of Medicine Clinical Biochemistry Department							
10.15 – 11.15		10.45 – 11.00	Treatment of type 2 diabetes in conditions of out-patient reception of a family doctor through the prism of modern ADA-2018 recommendations Dr. Olha PROTSYUK Associate of the Department of Family Medicine, National Medical Academy of Postgraduate Education. PL Shupika							
		11.00 – 11.15	Diabetic Foot Vusule YAŞAR, MD Unical Clinic							

11.30– 12.30	Prof. Galyna BEKETOVA	11.30 – 12.30	Gastrointestinal System Disorders in Children Functional gastrointestinal disorders: Roman criteria - IV Prof. Galyna BEKETOVA Shupyk National Medicine Academy Postgraduate Education Child and Adolescent Diseases Department Head Prof. Natalia BEZDITKO Doctor of Medical Sciences, Professor, Department of Pharmacoeconomics, National Pharmaceutical University
	Dr. Ali YILMAZ	12.30-12.45	Abdominal pain. Choice of rational therapy Prof. Natalia BEZDITKO Doctor of Medical Sciences, Professor, Department of Pharmacoeconomics, National Pharmaceutical University
		12.45 – 13.00	Syndrome of acetoneemic vomiting in children Prof. Galyna Volodymyrivna BEKETOVA Shupyk National Medicine Academy Postgraduate Education Child and Adolescent Diseases Department Head
13.00-13.45			Lunch
	Prof. Volodymyr KOVALENKO Prof. Başar CANDER	13.45 – 14.00	Cardiovascular Emergencies Course Acute coronary syndrome - the state of the problem and the provision of medical care in Ukraine Prof. Dr. Volodymyr KOVALENKO Chairman, Ukraine Cardiologists Association
		14.00 – 14.15	Cure of patients with stable angina - the possibilities of a family doctor in Ukraine Prof. Mariana SELIUK Candidate of Medical Sciences, Professor of the Department of Therapy at UMAA
13.45 – 15.45		14.15 – 14.30	Organization of emergency care for patients with life threatening heart rhythm disorders Prof. Alexander PARHOMENKO Strazhesko "State Science Center" State Institute Cardiology Institute NAMS Resuscitation and Intensive Care Department Head
		14.30 – 14.45	Modern possibilities of optimizing the treatment of coronary heart disease Prof. Viktoriya ZHARINOVA doctor of Medical Sciences, Professor, Head of Cardiology Department of the State University D. F. Chebotarev State Institute of Gerontology, NAMSU
		14.45 – 15.00	Sinus Rhythm Restoration and Sustenance in Atrial Fibrillation Prof. Oleg SYCHOV Strazhesko "State Science Center" State Institute Cardiology Institute NAMS Cardiac Arrhythmia Department Head

		15.00 – 15.15	Diseases of civilization: new possibilities in the correction of metabolic disorders Prof. Sergiy Sova doctor of medical sciences, professor of propaedeutics department of the Bogomolets National Medical University	
			Arterial hypertension: hypertensive crises Prof. Yuri SIRENKO doctor Medical Sciences, Professor, Head of the Department of Symptomatic Hypertension DN "NSC" Institute of Cardiology named after academician M.D. Strazhesko "NAMS of Ukraine	
		15.30 – 15.45	Resistance to anticoagulant and antiplatelet therapy in patients with ischemic heart disease and ways of its correction Prof. Vasyl Netyazhenko doctor honey Sciences, professor, head of the department of propaedeutics of internal medicine №1 of the O. Bohomolets NMU	
		15.30 – 15.45	Prevention and treatment of cardiovascular and cerebrovascular complications in patients with high-risk arterial hypertension Prof. Olena VOLOSHINA Doctor of Medical Sciences, professor, Head of the Department of General Practice of the Odessa National Medical University	
15.45-16.00	Coffee Break			
		16.00-16.15	Rational Use of Medication Asst. Prof. Yücel UYSAL Mersin University Faculty of Medicine Family Practice Department	
16.00-16.45	Dr. Emre ÖZEL	16.15-16.30	Murat Fazıl SOYAL Trabzon Family Doctors Association Education Commission	
		16.30-16.45	Infections of the respiratory tract. Modern treatment options Prof. Inna GOGUNSKAYA Kolomiychenko State Upper Respiratory Tract and Otorhinolaryngology Institute NAMS Center Allergic Diseases Department Vice Chairman	
16.45-17.00			Break	
17.00 – 18.00	Prof. Fedir LAPII Dr. Muhsin Ertuğrul ŞEN	17.00 – 17.30	Vaccine Schedule in Ukraine Vaccination in Ukraine: work on mistakes Prof. Fedir LAPII, MD, PhD. Associate Professor of Department of Paediatric Infectious Diseases and Paediatric Immunology, Shupyk NMAPE	

		Vaccines
	17.30 – 18.00	Vaccine Schedule in Turkey Asst. Prof. Elif ATEŞ KTÜ Faculty of Medicine Family Practice Department
20:00		Dinner

16 MARCH 2018, FRIDAY – HALL B

Time	Moderator	Subject and Speakers
09.00 – 13.00	Prof. Volodymyr KOVALENKO Prof. Başar CANDER	Basic and Advanced Life Support for Adults Prof. Başar CANDER Chairman, Emergency Medicine Physician Association of Turkey; Head of The Department of Emergency Medicine, Meral Faculty of Medicine, Necmettin Erbakan University Acute Myocardial Infarction Management Specialist Ayça ÇALBAY Erzurum Regional Education and Research Hospital Emergency Clinic ECG Interpretation in Emergency Assoc. Prof. Ahmet Kenan TÜRKDOĞAN Adnan Menderes University Faculty of Medicine Emergency Department
13.00- 13.45		Lunch
13.45 - 18.00	Assoc. Prof. Mehmet BOZDEMİR	Pediatric Emergencies Course Basic and Advanced Paediatric Life Support Assoc. Prof. Yahya Kemal GÜNAYDIN R.T. Ankara Education and Research Hospital Emergency Clinic Pediatric Trauma Management Assoc. Prof. Mehmet Nuri BOZDEMiR Health Sciences University Antalya Education and Research Hospital Pediatric Convulsion Method Asst. Prof. Burak KATIPOĞLU Ufuk University Faculty of Medicine Dr. Rıdvan Ege Health Research and Practice Hospital
18.00 - 19.00	Specialist Ayça ÇALBAY	Oral Presentations
20.00 - 24.00		Dinner

17 MARCH 2018, SATURDAY – HALL A

Time	Moderator	Time limit	Subject and Speakers											
			Turkey-Ukraine Emergency Health Services Symposium											
	Prof. Zeynep ÇAKIR	09.00 – 09.15	Prof. Başar CANDER Chairman, Emergency Medicine Physician Association of Turkey; Head of The Department of Emergency Medicine, Meral Faculty of Medicine, Necmettin Erbakan University											
09.00 – 10.00	Prof. Volodymyr	09.15 – 09.30	Halil ŞEN First Legal Counsel of Public Health Care, R.T. Ministry of Health											
	ROGOV	09.30 - 09.45	Prof. TOLSTANOV Shupyk National Medicine Academy Postgraduate Education Educational and Pedagogical Studies Vice Chancellor											
		09.45 - 10.00	Emergency medical care reform: realities and myths Prof. Volodymyr ROGOV Chairman, Emergency Staff Association											
10.00 - 10.15			Coffee Break											
			Headache Management in Emergency											
		10.15 – 10.30	Prof. Behçet AL Gaziantep University Faculty of Medicine Emergency Department											
	Prof. Ivan ZOZULIA	10.30 – 10.45	Some features and clinical diagnostics of inflammatory diseases of the brain Assoc. Prof. Andriy Zozulya Shupyk National Medicine Academy Postgraduate Education Emergency Medicine Department Associate Professor											
10.15 – 11.30	Prof. Behçet AL Prof.	10.45 – 11.00	SSS Emergencies: Stroke Prof. Zeynep ÇAKIR Atatürk University Faculty of Medicine Emergency Department											
	Volodymyr	Volodymyr ROGOV	11.00 – 11.15	SSS Emergencies: Intracranial Bleedings Assoc. Prof. Mehmet OKUMUŞ R.T. Ministry of Health Ankara Education and Research Hospital Emergency Medicine Clinic										
												11.15 – 11.30	11.15 – 11.30	Paroxysmal headache and dizziness Prof. Tatyana Slobodin Doctor Medical Sciences, Professor of the Department of Neurology of NMAPE named after P. L. Shupik
11.30 – 11.45			Break											
11.45 - 13.15 P	Prof. Maryna DOLZHENKO Prof. Dr.	11.45 – 12.00	Hypertension Management in Emergency Assoc Prof. Yavuz KATIRCI R.T. Ministry of Health Keçiören Education and Research Hospital Emergency Medicine Clinic											
		12.00 – 12.15	Cardiovascular prevention and rehabilitation in Ukraine and Europe according to the international study EUROASPIRE IV Prof. Marina Dolzhenko doctor honey Sciences, Professor, Head of the Department of Cardiology NMAPE named after P. L. Shupik, Honored Doctor of											

			Ukraine
		12.15 – 12.30	Renal Colic Management in Emergency Asst. Prof. Burak KATIPOĞLU Ufuk University Faculty of Medicine Dr. Rıdvan Ege Health Research and Practice Hospital
		12.30 – 12.45	Approach to Breath Shortness Patient in Emergency Prof. Dr. Mehmet GÜL Necmettin Erbakan University Faculty of Medicine Emergency Department
		12.45-13.00	Approach to Stomach Ache in Emergency Prof. Ahmet AK Selçuk University Faculty of Medicine Emergency Department
		13.00-13.15	Efficiency of Medical Service Provision in Patients Assoc. Prof. Mykhajlo MAXIMENKO Shupyk National Medicine Academy Postgraduate Education Emergency Medicine Department Associate Professor
13.15 – 14.00			Lunch
	Assoc. Prof.	14.00 – 14.15	General Approach to Intoxications Assoc. Prof. Yunsur ÇEVİK R.T. Ministry of Health Keçiören Education and Research Hospital Emergency Medicine Clinic
14.00 – 14.45	Yunsur ÇEVİK Dr. Anton	14.15– 14.30	Frequent Intoxications in Emergency Prof. Hakan OĞUZTÜRK İnönü University Faculty of Medicine Emergency Department
	VOLOSOVETS	14.30-14.45	Acute poisoning with psychotropic substances: emergency care Oleg IVASHCHENKO candidate of medical sciences, assistant professor of emergency medicine department
14.45-15.00			Break
		15.00 – 15.15	General Approach to Trauma Patient Specialist Ayça ÇALBAY Erzurum Regional Education and Research Hospital Emergency Clinic
15.00 – 15.45	Prof. Hakan OĞUZTÜRK Prof. Andriy ZOZULYA	15.15– 15.30	Thorax and Abdomen Trauma Management Assoc. Prof. Ahmet Kenan TÜRKDOĞAN Adnan Menderes University Faculty of Medicine Emergency Department
		15.30 – 15.45	Brain and Spinal Trauma Management Assoc. Prof. Yahya Kemal GÜNAYDIN R.T. Ankara Education and Research Hospital Emergency
15.45-16.00			Coffee Break
16.00-17.00	Prof. Mariana SELIUK Dr. Burhan	16.00-16.30	Management of Anemia at Family Health Centres Prof. Ertan MERT Mersin University Faculty of Medicine Family Practice Department
	YILMAZ	16.30-17.00	Asst. Prof. Oğuzhan ÖZCAN

20.00 - 24.00

Mustafa Kemal University Faculty of Medicine Clinical Biochemistry Department

Dinner

17 MARCH 2018, SATURDAY – HALL B

Time	Moderator	Subject and Speakers		
	Dr. Teona VARSHALOMİDZE	Rational Laboratory Usage Course		
09.00 - 13.15	Dr. Murat Fazıl SOYAL	Asst. Prof. Oğuzhan ÖZCAN Mustafa Kemal University Faculty of Medicine Clinical Biochemistry Department		
13.15 - 14.00		Lunch		
		Turkey-Ukraine First Step Health Services Workshop		
		Yavuz ATEŞ Head of Bugdet and Project Department, Public Health Care, R.T. Ministry of Health		
	Dr. Ali YILMAZ	Halil ŞEN First Legal Counsel of Public Health Care, R.T. Ministry of Health		
14.00 – 15.45	Dr. Vusule YAŞAR	Dr. Ulana SUPRUN Vice Minister, Ukraine Ministry of Health		
	Dr. Emre ÖZEL	Natalia Andreevna OSTROPOLETS Ukraine Ministry of Health Medical Care Management Department Head		
		Hakan UZUN AHEF General Secretary		
		Asst. Prof. Elif ATEŞ KTÜ Faculty of Medicine Family Practice Department		
15.45-16.00		Coffee Break		
		Reaching to Secrets of Beauty		
16.00 – 17.00	Dr. Canan TANRIVER	Nihal ADAĞ Beauty Trainer-Make Up Artist		
20.00 - 24.00		Dinner		

18 MARCH 2018, SUNDAY

Time	Moderator	Subject and Speakers
10.00 - 11.30	Dr. Ayten ALİEVA Dr. Burhan YILMAZ	Legal Problems and Solutions in Family Practice Halil ŞEN First Legal Counsel of Public Health Care, R.T. Ministry of Health Hakan UZUN AHEF General Secretary
11.30 - 12.00		Symposium Closing Speeches

POSTER BİLDİRİLER

PP-01

HEMATOM THAT APPROACHES THE ACROMIOKLAVICULAR JOINT DISLOCATION Asst. Prof. Dr. Abdullah Osman KOÇAK¹ MD. Meryem BETOS KOÇAK² Prof. Dr. Zeynep ÇAKIR¹ Assoc. Dr. Yasemin ÇAYIR² ¹Atatürk University Medical Faculty Department of Emergency Medicine ²Atatürk University Medical Faculty Department of Family Medicine

INTRODUCTION:

Acromioclavicular joint injuries are usually seen in young athletes. The most common injury is the result of a fall on the shoulder, a direct impact on the shoulder. The impact force applied to the impactor shoulder is medial and pushes down. If no fracture occurs, the acromioclavicular ligaments are first stretched and then torn off. If the applied force continues further, stretching the coracoclavicular ligament causes the deltoid and trapezius muscles to rupture and eventually tear the coracoclavicular ligaments. Traumatic rupture may occur in the muscles and tendons, and this rupture may also lead to hematomas. This can cause excessive pain and sensitivity in patients.

CASE PRESENTATION

Our patient, a 67-year-old woman, came to our emergency department with a complaint of swelling on the shoulder joint after lifting a heavy load. Physical examination revealed that this swollen stiff rigid immobilized skin does not change color regularly (Figure 1a). In this case, a direct radiograph was taken to the patient who was evaluated with acromioclavikular dislocation(Figure-1b). It was seen that his joint was not dislocated. For further examination, MR was pulled to the patient's shoulder (picture-1c). As the hematoma and cyst distinction could not be done completely, aspiration was performed by needle insertion and aspiration was compatible with the resultant hematoma (Fig. 1d). Antibiotic therapy and follow-up were recommended. The patient's symptoms were decreased.

DISCUSSION

The patient was diagnosed as acromioclavicular joint dislocation with physical examination and diagnosed as intramuscular hematoma after further examination. It should be kept in mind that hematomas may occur in shoulder joint swellings as in this patient.

Key words: Acromioclavicular Joint dislocation, intramuscular hematoma, trauma

Figure-1abcd



Assesment of delivery methods of pregnancies followed in a family health center

Ahmet $ERAY^{l}$, <u>Turan SET</u>², Elif $ATE\S^{2}$

¹Kürtün Family Health Center, Gümüşhane, Turkey

²Karadeniz Technical University; Medical Faculty, Department of Family Medicine, Trabzon, Turkey

Introduction and Objective: Pregnancies result in different forms. These are spontaneous abortion (miscarriage), fetal demise and live birth. There are two types of delivery methods including vaginal section (VS) and caesarean section (CS). CS have become increasingly common in both developed and developing countries. The aim of this research is to asses delivery methods of pregnant women followed in a family health center.

Method: The research was structured as a cross-sectional descriptive study. Total 505 periodic health examination forms of pregnant women who followed between March 2014 and March 2018, enrolled in the Gümüşhane Kürtün family health center population were screened retrospectively. The age of the pregnant women, pregnancy and birth outcome status was recorded.

Results: The pregnant wowen average age at the time of delivery was 27.8 ± 5.8 years. Miscarriage ratio was 8.3% (n=42) and live birth ratio was 91.7% (n=463). In these pregnancies that resulted in live birth, VS ratio was 52.4% (n=243) and CS ratio was 47.5% (n=220).

Conclusion: In our study, CS ratio was rare than half of live births. The share of CS in all births in Turkey increased from 21% in 2002 to 53.1% in 2016 (1). CS rates average in OECD countries are 27.9% (2). Since 1985, the international healthcare community has considered the ideal rate for CS to be between 10% and 15% (3). Our study rates are better than the national average. This can be explained by the fact that the sample lives in rural areas. But this is not at the desired level. It has been observed that personal preferences play an important role in this decision as well, for a number of reasons. In recent years, governments and clinicians have expressed concern about the rise in the numbers of CS births and the potential negative consequences for maternal and infant health. Every effort should be made to provide CS's to women in need, rather than striving to achieve a specific rate. In the case of pregnancies followed in the primary health care establishment, it is possible to increase the normal birth rates by encouraging and giving more counseling for this issue.

Keywords: Delivery methods, Caesarean section, Primary care

References

1. Republic of Turkey, Ministry of Health. Annual statistics on health statistics 2016. (https://dosyasb.saglik.gov.tr/Eklenti/13160,sy2016enpdf.pdf?0)

2. OECD, Health at a Glance 2017: OECD Indicators, OECD Publishing, Paris. (http://dx.doi.org/10.1787/health_glance-2017-en)

3. World Health Organisation. WHO Statement on Caesarean Section Rates (http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/cs-statement/en/)

A SNAKE BİTE CASE with EXTREMELY ELEVATED INTERNATİONAL NORMALİZED RATİO (INR)

Ali Karakus¹, Ali Bucak¹, Guven Kuvandik¹, Oguzhan Ozcan²

¹Mustafa Kemal University Faculty of Medicine Emergency Department- Hatay/Turkey

²*Mustafa Kemal University Faculty of Medicine Medical Biochemistry – Hatay/Turkey*

Background: Snake venom includes several toxins such us hematoxins, neurotoxins and hemolytic factors and can cause mild local symptoms, systemic complications and death. Viperidae is the most common venomous snakes in Turkey and have mainly two toxins, hematoxin and neurotoxin (1). Although they show mild local and systemic effects such as edema, ecchymosis, nausea, vomiting they can also lead to severe anemia, bleeding diathesis and necrosis (2). INR (International Normalized Ratio), is a standard unit used to report the result of a protrombine time (PT) and primarily used to diagnose and manage bleeding diathesis, liver diseases, and monitoring people being treated with warfarin (an anti-clotting treatment). In this report, we described a rare snakebite case with high INR levels.

Case: A 65-year-old male patient was admitted to emergency department three hour after having bitten on the left arm. The patient was hospitalized. The vital signs of the patient were within normal limits. Blood pressure was 110/80 mmHg, heart rate was 84 beats per minute and respiratory rate was 16 breaths/min. Physical examination revealed a slightly tender, bluish-red ecchymosis of 4-5 cm in diameter and mild edema on the bite area. His initial PT-INR value 16,2 (normal range, 0,8 - 1,2) and aPTT was 58.6 s. Other biochemical and hematological parameters were within normal limits. One-unit fresh frozen plasma (FFP) and 14 flacon snake antivenom/250 cc isotonic saline (Equine, European Institute of Immunology, Croatia) were given at four hour interval together with fluid replacement therapy (isotonic saline solution, 0.9%). Consecutive INR values were normalized during two-day follow–up (Table 1 and Figure 1). No spontaneous bleeding or any negative outcome was observed. The patient was discharged with suggestions.

Conclusion: Higher INR values can be observed in snakebite cases and cause bleeding diathesis. Therefore, PT-INR and aPTT tests have vital importance in diagnosis and monitoring of these patients and early anti-venom therapy prevents the development of complications.

Day	Hour	PT-INR	PT (s)	aPTT (s)
1.gün	00:21	16,21	119,6	58,6
1.gün	01:07	12,45	97	57,6
1.gün	19:20	1,27	15,8	27,3
2.gün	00:39	1,18	14,9	29
2.gün	06:36	1,07	13,8	25

Table 1. Coagulation parameters of the patient

Figure 1. INR values of the patients during medical therapy



Key Words: Snakebite, INR, anti-venom therapy

References

1. Karakus A, Kuvandık G. Yılan ısırması sonrası hematüri gelişen olgu. Firat Med J 2016; 21(4): 229-230.

2. Karakus A, Zeren C, Celik MM, et al. A 5-year retrospective evaluation of snakebite cases in Ha-tay, Turkey. Toxicol Ind Health 2015; 31: 188-92.

3. Şahan M, Taşın V, Karakuş A, Özcan O, Eryiğit U, Kuvandık G. Evaluation of patients with snakebite who presented to the emergency department: 132 cases.Turkish Journal of Trauma & Emergency Surgery. 2016;22(4):333–337

A strange cardiac arrest case Gullian Barre Syndrome

Uzm. Dr. Ayça ÇALBAY^l, Yrd. Doç. Orhan DELİCE^l

¹Ministry of Health Erzurum Training and Research Hospital, Department of Emergency Medicine

Introduction: The causes of sudden cardiac arrest vary depending on the population studied on and the age of the patient group. It often occurs with sudden cardiac activity stopped. This is mainly due to structural and ischemic heart diseases and non-cardiac diseases are important reasons to keep in mind.

Case: A 23-year-old female patient was admitted to the emergency room with complaints of weakness in both arms and shoulder. When the drowsiness started with weakness, the patient was directed to the district hospital. The patient's history included a 34-week pregnancy and a history of upper respiratory tract infection beginning 3 days earlier. When she comes to the district hospital, the weakness of the patient spreads throughout her body and she is undergoing cardiac arrest. After a 5-minute cardiopulmonary resuscitation, the patient returns to spontaneous circulation and is referred to our clinic. The vital signs of the patient when she arrived were as following: TA: 110 / 69mmHg, Pulse: 106 / min, SpO2: 98%, Fever: $36,5 \circ C$. There was no pathological finding on the physical examination except for the Glaskow coma scale 6 and the patient was entubated. Electrocardiography was performed at sinus rhythm with 75 / min heart rate. There was no evidence of any central nervous system disease, pulmonary embolism, aortic dissection or myocardial infarction. The patient was admitted to the anesthesia and reanimation clinic. When the patient was being treated clinically, the patient underwent electromyography and was found to be compatible with Gullian Barre syndrome. Patients who received IVIG and plasmapheresis treatment were born with cesarean section and discharged with a cerebral performance score of 3.

Result: GBS starts symmetrically at the distal part of the arms and legs quickly. Progressive muscle weakness may lead to cardiac arrhythmias and need respiratory support. Death or severe sequelae rate is 6-17% and disease heals 50%. The dramatic response of IVIG and plazmapereze should be kept in mind in cases where cardiac arrest may occur.

Vena Cava Superior Syndrome

Uzm. Dr. Ayça ÇALBAY¹, Yrd. Doç Abdullah Osman KOÇAK¹, Doç. Dr. Atıf BAYRAMOĞLU² ¹Ministry of Health Erzurum Training and Research Hospital, Department of Emergency Medicine ²Atatürk University, Department of Emergency Medicine

Introduction: Vena kava superior syndrome occurs as a result of blockage of blood flow in vena cava superior. This blockage demands on a thrombus or direct invasion in the lumen or compression resulting in benign or malign diseases. If the underlying cause is malignancy or thrombosis, the clinic may progress rapidly, and for a benign cause, clinic may take a long period of time to develop.

Case: A 60-year-old male patient was admitted to our emergency department as cardiopulmonary arrest. Respiratory distress, chest and back pain were in his epicriz begining from the morning. Cardiopulmonary resuscitation was performed when emergency medical service (EMS) team brought in. After the intubation the spontaneous circulation returned after 30 minutes of resuscitation. In physical examination the Glaskow coma scale of the patient was 3, hemodynamic situation was unstable, cardiac voices were deeply present and juguler filling were in the right side of the neck (Figure 1). Skin color on the upper side of the neck root was cyanosis, normal on the lower part (Fig. 2). Thrombus showned in the vena cava superior with aortic dissection and pericardial effusion in thorax and abdominal computed tomography and the patient admitted to cardiovascular surgery intensive care unit with Venous cava superior syndrome (VCSS) and aortic dissection diagnose. The patient whose prognosis worsened in service follow-ups has been exitus after 6 hours.

Result: The VCSS results in decreased cardiac output, edema in the upper airway and brain, which increases mortality. In clinically suspicious cases, the improvement is 50-70% in benign patients and high in patients with suspicious malignant disease. Being able to recognize patients with many treatment modalities for the underlying cause will increase the patient's chances of survival.

WHAT HAPPENED TO WOMEN?

Fatma Tortum MD¹, Atıf Bayramoğlu MD², Zeynep Çakır MD² ¹Erzurum Regional Training And Resarch Hospital, Emergency Department, Erzurum ²Atatürk University, Medical Faculty, Emergency Department, Erzurum.

INTRODUCTION: The temporomandibular joint is a bilateral, synovial joint that is responsible for the movement of the mandible. The joint forms the mandibular condyle and the glenoid fossa on the temporal bone. There may be anterior, superior, inferior, posterior dislocations. Anterior dislocations often occur when the mouth is excessively opened, such as yawning, chewing, laughing. Superior and posterior dislocations are more commonly associated with trauma. Temporomandibular joint dislocation is a painful and frightening situation for the patient. During examination, mouth is open, speech is impaired and there is sensitivity in temporomandibular joint. The preauricular area may have depression. Mandibular condyles are evident at the anterior dislocations and spasm is present in the preauricular muscles. Temporomandibular joint dislocation progresses in time preauriculer increases in muscle spasms. This makes both reduction difficult and causes pain to increase. External interventions are usually sufficient to replace the joint. These interventions are the wrist pivot method, syringe method and conventional approach.

CASES:

Case 1: A 42-year-old woman was admitted to the emergency room complained of open mouth and unable to speak during yawning. Preauricular muscle spasm was present on the patient's examination. Mandibular condyle is bilaterally anterior displacement, mouth is open (Picture 1a). The temporomandibular joint was reduced by applying the wrist pivot method.

Case 2: A few hours after case 1, a 28-year-old female patient was admitted to the emergency room complained of a open mouth and jaw pain. The complaints of the patient began when eating. The patient's palpation showed temporomandibular joint tenderness, bilateral anterior displacement in mandibular condyles, preauricular muscle spasm (Picture 1b). Reduction was performed with the wrist pivot method.

CONCLUSION: Temporomandibular joint dislocations should be reduced without delay when the emergency department visits. Failed externally reduction in patients with prolonged distension may lead to the need for sedation. Traumatic reductions can cause recurrent dislocations, mandibular fractures.



Picture1a: Bilateral anterior temporomadibular joint dislocation.



Picture1b: Bilateral anterior temporomadibular joint dislocation.

LICORICE-INDUCED ACUTE HYPOKALEMIC QUADRIPARESIS: A RARE CASE IN LITERATURE

Muhammet Murat Celik¹, Oguzhan Ozcan², Ali Karakus³

¹*Mustafa Kemal University Medical Faculty, Internal Medicine Department. Hatay-Turkey.*

²Mustafa Kemal University Medical Faculty, Medical Biochemistry. Hatay-Turkey.

³*Mustafa Kemal University Medical Faculty, Emergency Department. Hatay-Turkey.*

Background:

Acute hypokalemic quadriparesis is an uncommon condition arising from licorice (glycyrrhizin) consumption. It is a rare entity, and there are only few cases reported in literature. Potassium is important for neuromuscular and cardiovascular functions. Hypokalemia may demonstrate with extreme fatigue, muscle weakness, polyuria, polydipsia, ileus, rhabdomyolysis, and arrhythmia. In this presentation, we aimed to report a case of quadriparesis secondary to severe hypokalemia due to licorice consumption.

Case Report:

A 52-year-old female was admitted to emergency department with a 10-day history of acute onset progressive weakness of the four limbs. Her medical history revealed that the patient had not suffered from any chronic disorder. She was not previously treated any long term drugs. Also, there was no her family history of similar illness. In the last 10 days, the patient reported she was drink 1 liter of licorice per day approximately. Also, she reported that her weakness started first from lower extremities, and then progressed to involve upper extremities symmetrically.

On general examination, her blood pressure was 160/90 mmHg, heart rate was 74 beats per minute, respiratory rate was 16 breaths per minute. It was symmetric pretibial edema in her lower extremities without skin abnormalities. Neurological examination revealed grade 2/5 power in both lower limbs, and grade 2-3/5 power in both upper limbs with diminished deep tendon reflexes. There was no cranial nerve involvement, also was not sensory deficit, and bladder, bowel, or bulbar dysfunction. Other examination findings was normal.

On laboratory examination, her blood biochemistry revealed potassium 1.8 mmol/L, and normal sodium, chlore, phosphorus, calcium, magnesium, glucose values. Renal, hepatic, and thyroid function tests were completely normal. The arterial blood gas analysis showed a metabolic alkalosis (pH=7.50, PCO2=48 mmHg, HCO3=34 mEq/L, and sO2=%90). Hematological results were within normal limits. The urine analysis showed normal pH and gravity. There was no proteinuria, hematuria or glycosuria. In 24 hour urine analysis, potassium, sodium, chlore, calcium, phosphorus, and magnesium were within normal limits. Her clinical findings became normal after ceasing licorice and correction of the hypokalemia with intravenous potassium infusion.

Conclusion:

Hypokalemia results from transcellular shift, renal or gastrointestinal losses, or inadequate intake of nutrients. Hypokalemia is important electrolyte disorder in terms of neuromuscular manifestations. It can be seldom presented with acute flaccid paralysis.

Licorice has a mineralocorticoid-like activity. Licorice inhibits 11-B-hydroxysteroid dehydrogenase type-2. It is directly effects on the mineralocorticoid receptors causing sodium reabsorption and potassium secretion.

Excessive licorice consumption may result rarely with severe hypokalemia leading to severe quadriparesis. It must be kept in mind for differential diagnosis in patients with hypokalemia and quadriparesis in emergency department.

Key Words: Hypokalemia, quadriparesis, licorice.

NOT A SIMPLEY SYMPTOM; SALIVA: FOREIGN BODY IMPACTION; A CASE REPORT

Özgün Kösenli

Başkent University, Adana Dr. Turgut Noyan Training and Research Center

Emergency Department, Adana, Turkey

Purpose:

Foreign body impaction (FBI) in the esophagus can be a serious condition, which can have a high mortality among children, if appropriate diagnosis and treatment are not instituted urgently. Patients may apply to the emergency department with various symptoms. Here, we report a case of a foreign body induced a patient with recurrent retching and splitting.

Case:

A 6,5-year-old male patient was an itchy sensation in the throat after eating. His saliva secretion was increased and spited frequently enough to fill his mouth. Admitted to the emergency department with this complaint, the patient's general condition was normal with stable vital signs. Glascow Coma Scala (GKS) was 15. Antero-posterior x-ray of the chest and abdomen was carried out; however, no radiographic evidence was seen. We learn that the patient had caught feeling after eating chicken. Upon this, the patient was consulted by pediatric surgery and otolaringology because of suspecting foreign body aspiration. Otolaringology examination with fiberoptic endoscope was normal. Immediate esophagoscopy was performed using a flexible endoscope and a large chicken piece was removed from the upper oesophagus.(Figure 1) No immediate post-operative complications were seen. Patient was discharged in stable condition following day.



Figure 1.Chicken piese at endoscope

Result:

Esophageal foreign bodies are common in childhood. Methalic money is reported as the most extracted object in various researh series. Many children may not be any symptom. Besides, the most common signs and symptoms are dysphagia, odinofagia, donning sensation and increase of secretions. The lack of foreign body in radiography does not rule out foreign bodies. Endoscopy is considered to be the gold standard in retrieving foreign bodies with a reported positive extraction. Both rigid and flexible endoscopic extraction can be used,

As a result, accurate diagnosis and early treatment of pediatric foreign bodies ingestion and oesophageal impaction are important key steps for decreasing associated morbidity.

SÖZEL BİLDİRİLER

OP-01

Evaluation of the Patients who were Hospitalized in to Cardiovascular Surgery(CVS) Intensive Care Service from the Emergency Department

Asst. Professor. Abdullah Osman KOÇAK¹

¹Atatürk University Faculty of Medicine Emergency Medicine Department-ERZURUM

Specialist Dr. Ayça ÇALBAY²

²Erzurum Education and Research Hospital Emergency Medicine Clinic

Objective: The aim of this study is define to the following characteristics of the patients who were hospitalized in to cardiovascular surgery intensive care service from the emergency department: demographic characteristics, admittion complaints and times, diagnoses, treatments in CVS intensive care service, length of stay in CVS intensive care service and results in outcome.

Material and Methods: This is a retrospective descriptive study. We investigate the patients who were hospitalized in to cardiovascular surgery intensive care service from the emergency department between 01.12.2017-31.12.2017 dates retrospectively. We prepare our datas by analyzing the patients records.

Results: 22 patient were included to our study. 59.1% (n = 13) of the patients were male. The mean value according to age distribution was $70,14 \pm 11,922$ (min: 39, max: 88). The comman admittion complaint was chest pain (54,5%) and the others were extremity pain (18,2%), back pain (13,6%), abdominal pain (9,1%) and lomber pain (4,5%) in orderly. The most frequently admittion time was between 12:00-18:00 and 18:00-24:00 (36,4%). The fruguency between 08:12-00 and 24:00-08:00 was 13,6%. In the analysis of patients' admission diagnoses, type 1 aortic dissection (27.3%) was the most frequently diagnosed according to De Bakey classification. The frequency of patients hospitalized with the indication of Emergency Coronary Artery Bypass Surgery was 22.7%. The third most common diagnosis with arterial embolism rate was 18.2%. According to De Bakey classification, type 3 aortic dissection and aortic aneurysm were observed in 13,6% and the least common diagnosis was type-2 aortic dissection. The mean duration of hospitalization in the KDC service of the patients was 9.77 days. If we will look at the treatments applied to the disease; 36.4% of the patients were not treated surgically and the most common surgical procedure was identified as Emergency Coronary Artery Bypass Surgery. This was followed by embolectomy with 18.2%, aortic aneurysm surgery with 13.6%, and aortic dissection with 4.5%. 90.9% of the patients were died.

Conclusion: It is the first study on emergency vascular diseases in our region. Our work offers a lot of descriptive information for many future studies.

OP-02

A Look Over Falls Through Geriatric Trauma Patients

<u>Uzm. Dr. Ayça ÇALBAY¹</u>, Prof. Dr. Zeynep GÖKCAN ÇAKIR², Yrd Doç Abdullah Osman KOÇAK²

¹Ministry of Health Erzurum Training and Research Hospital, Department of Emergency Medicine ²Atatürk University, Department of Emergency Medicine

Objective: Patients aged 65 and older are less likely to be injured than youngers and older patients are more likely to have a fatal outcome from their injuries. Physical reserves of the elderly patients were changing by the age. Injuries due to these changes adversely affect the outcome and prognosis of the geriatric patients. Also they effect the trauma mechanism. Because of these falls are the most common mechanism of injury in this population seen in emergency departments. In the region we live, the month of December and January are the hardest times for the elderly patients by the physical conditions. Because of this situation we aimed to investigate the fall geriatric patients in this period and define their affected areas and seriousness.

Method: This is a retrospective descriptive study. We investigate the 65 and over 65 years patients who were admitted to our emergency department with the complaint of fall from from their own high on 01.12.2017 to 31.01.2018. In this two months we find 101 patients. Three of them's affected area was not defined so they are excluded. The patients files searched in the electronic records. The x-ray radiographies, computarized tomography (CT) and magnetic resonance (MR) scans readed again so injuries were noted.

Results: Years of 65 and over of 98 patient were included to study. Because of missing data three patient were excluded. Patients were classified seven different injury areas as following: head, spinal (cervical-thoracal-lomber), thorax, abdomen, pelvic, upper extremity (shoulder, humerus, elbow, radius, ulna, hand) and lower extremity (femur, knee, tibia, fibula, foot). The most affected area of these groups as following in orderly: upper extremity (42 patient), head (31 patient), lower extremity (28 patient), thorax (23 patient), pelvis (20 patient) and cervical spine (17 patient)(Table 1). 1/3 of upper extremity trauma and ¹/₄ of lower extremity and pelvis traumas were resulted with fracture. There was not any mortal injury showed with C-spine, T-spine, knee and whirist traumas.

Effected Area	Injury	Fracture (Compression- Spinal)	Dislocation (Hemoragy- Head,Contusion- Torax,transvers proces fracture- Spinal)
Head	31	1	1
Spinal-C	17	0	0
Spinal-T	9	0	1
Spinal-L	7	1	0
Torax	23	5	2
Abdomen	4	0	0
Pelvic	20	4	0
Shoulder	8	2	1
Humerus	4	2	0
Whirist	3	0	0
Radius	17	7	0
Ulna	17	3	1
Hand	8	0	0
Femur	12	4	0
Knee	11	0	0
Tibia	3	1	0
Fibula	3	1	0
Foot	2	1	0
Upper Extremity	42	15	2
Lower Extremity	28	7	0

Table 1

Conclusion: Visual, hearing, and memory impairments cause falls in older adults. In addition drugs, alchol use, changes in the central nervous and musculoskeletal systems (degeneration of joints) effects them. Because of their physical changes like brain atrophy, decrease of respiratory vital capasity and cardiac stroke volume and rate with anticoagulant drug use the results of geriatric fall patient's will be more mortal. Especially in pelvic traumas retroperitoneal hemorrhage should be keep in mind. In head traumas, patients' consciousness should not be depand on only elderly adult's demans and daily behaviours. Just one movement as partial seizure, speech or somnolence should be the sign of circulatory failure or hemorrhage. In extremity traumas signs and complaints of geriatric patients should be a guide of lession. Falls are the cause of %40 patients death in this age group. Minor mechanisms of injury can produce potentially lethal injury and complications. Because of this important situation geriatric patients who were admitted to emergency services should examine carefully, vital signs were follow closely and watch their conscious continuously.

0P-03

Necrotizing fasciitis

Uzm. Dr. Ayça ÇALBAY

Ministry of Health Erzurum Training and Research Hospital, Department of Emergency Medicine

Introduction: Necrotizing soft tissue infections (NYLE) are bacterial infections caused by necrotic lesions in any layer of soft tissue or in the anatomical region. The definition is made according to the depth of the necrotized tissue and the anatomically retained region. Necrotizing fasciitis (NF) is one of this group's infection. It is known as a rare disease and typically caused by toxin-producing bacteria and the extensive inflammatory response. The insidans of necrotising fasciitis is 40 cases per 1,000,000 person-years with 4.8 deaths per 1,000,000 person-years in the United States.

Case: A 45 year old man patient admitted to our emergency department with pain on his left lower extremity. The patient was traumatized by a caw one week before. His vital signs were in normal range. On his physical examination there was a big size of ecchymosis and cyanosis areas all over the anterior, medial and lateral tibial face (Figure 1). These areas were have fewer, bad odor and swelling. There was no motion restriction and the Homan's sign was negative. The pulse of all lower extremity wessels were intact. The laboratuary tests were as following WBC: $13.500 \times 10,000/\mu$ L, Hb: 17 g/dL, Na: 128, Cr: $1,3\mu$ mol/L, Glu:135 mg/dl and CRP: 16mg/L. The patient was consultated to Infection Disease Clinic and hospitalized for the intravenous antibiotheraphy with NF diagnose.



Figure 1

Result: Early diagnosis, simplified risk stratification and on-time management is achieve better outcomes in patients with NF. For the diagnosis and treatment management LRINEC score is usefull. But not only the determinative for theraphy. Most important thing is suspicion for NF. In trauma patients which were aged, NF should keep in mind.

Keywords: Necrotizing soft tissue infections, Necrotizing fasciitis

OP-04

WHAT IS THE IMPORTANCE OF HEALTH LIVING EDUCATION IN HEALTH?

Abdullah Osman KOÇAK¹, Fatma Özlem ÇAYLAK¹, <u>Zeynep ÇAKIR¹</u>

¹Atatürk University Emergency Medicine Department, Erzurum/TURKEY

INTRODUCTION: The changing and evolving world reveals that there is a continuing need for training in all occupations, but they feel this need most, they are undoubtedly health workers. The ability of health workers to adapt themselves to new scientific and technological changes is one of their personal responsibilities as it will contribute to their development. Because health workers who are role models in the society, who are aware of the needs and needs of the people they serve and who are willing to help them in this way, should adapt to the current changes and direct the people and society they work with.

FINDINGS: In our country, the concepts of continuing education and in-service training of health personnel were mentioned for the first time in the year 1940, and then it was mentioned about the socialization of health services. It has been mentioned that hospitals are obliged to perform preventive and social health services as well as to treat them and to assist staff in vocational education. In the 1970s, the issue attracted attention of the World Health Organization and published a report in 1973 to be in favor of member countries. After repeatedly published "health for all" objectives, they talked about strategies to improve the quality of health workers.

Professional development is as much about society as it is about personal matter. Because the health worker is extra responsibility for the people around him and he will develop a self-improving health worker who follows the innovations and he will provide a better service. Therefore, this social part of professional development can never be denied.

The health worker must share knowledge, exchange ideas, and be open to suggestions with colleagues and staff members. Because it keeps up with the continuous changes and developments in the field of health and increases the quality in the profession. Protect society against inadequacies. It provides a better quality of service to people.

RESULT: Health care workers are responsible for both themselves and the community. In this sense, professional development is very important not only for themselves but also for the social sense. To keep pace with the developing and changing world, to follow the innovations in the sector and to be able to provide a better quality service should be one of the priority targets of a healthcare worker. In this respect, it should participate in in-service trainings to self-developed and organized courses.

OP-05

THE VALUE OF THE BLOOD GAS PARAMETERS IN THE PREDICTION OF THE MORTALITY IN TRAFFIC ACCIDENTS

Fatma Tortum MD¹, Atıf Bayramoğlu MD², Zeynep Çakır²

¹Erzurum Regional Training And Resarch Hospital, Emergency Department, Erzurum

²*Atatürk University, Medical Faculty, Emergency Department, Erzurum.*

Introduction and Objective: Traffic accidents are one of the leading causes of mortality in young adults. According to the data of Turkish Statistical Institute, 1,313,359 traffic accidents occurred in Turkey in 2015. Total 183,011 causalities were reported in these accidents. 7,530 deaths and 304,421 injuries were recorded. The examination of the patients injured in traffic accidents in the emergency departments has a vital importance. Increasing the prediction of the mortality in these patients will facilitate the physician's job and also improve the outcome of the patient. Several physiological and biochemical parameters were defined for this purpose. Our objective was to investigate the correlation between the mortality and blood gas parameters, which may provide comprehensive information about the general condition of the patient and are easily available in the emergency units.

Materials and Methods: 768 patients, who had applied to the emergency unit of the Atatürk University Research Hospital due to the traffic accident between 01.01.2017 and 01.07.2017, were retrospectively investigated. Two groups were formed from patients, who died (Group 1) and discharged (Group 2). The information about the patients and the blood gas analyses were retrieved from the electronic patient files and application files in the emergency department. Data were analyzed with SPSS v20 software package. The accepted limit of significance was p<0.05.

Results: 38.3 % of our patients were females and 61.7 % males. 56.4 % of them were discharged from the emergency department, 42.2 % were hospitalized and treated in the clinics and 1.4 % died. There was a significant difference between the groups regarding pH, lactate, HCO₃, SBC and PCO₂ levels. However, the differences in respect of glucose, sodium, potassium, SBE and PO₂ levels were insignificant (Table).

Discussion and Conclusion: An increase in the base deficit, which emerges due to the metabolic acidosis and lactic acidosis as a result of hypovolemia, was described in several studies focused on the patients injured in traffic accidents. Our study confirmed the findings in the literature and showed that the values of pH, HCO_3 , SBC and SBE were lower in the patients, who died, compared to the discharged patients. Analysis of the blood gas parameters may be an appropriate, fast and inexpensive approach for the evaluation of the patients injured in the traffic accidents and for the prediction of the mortality in the emergency services.

	GROUP 1 (EXITUS)		GROUP 2 (DISCHARGE)		P-value
	MEAN	SD	MEAN	SD	
Age	37	26	32	19	0.415
pН	7.21	0.2	7.40	0.07	0.028
Lactates	6.1	3.3	2.4	1.9	0.017
HCO ₃	17.8	5.6	22.5	4.1	0.002
SBE	-8.3	8.52	-2.2	5.7	0.084
SBC	16.9	6.1	22.6	3.2	0.034
PCO ₂	45	6.8	38	8.2	0.026
PO ₂	66.4	30.7	63.7	45.2	0.868
Blood gas Na	139	5	138	3	0.576
Blood gas glucose	214	217	140	57	0.405
Blood gas K	3.9	1	3.8	0.5	0.805

TABLE: Blood gas analyses of the groups.

OP-06

ETIOLOGICAL INVESTIGATION OF EPISTAXIS CASES WITHIN THE INDICATION OF RADIOLOGIC IMAGING WITHOUT TRAUMATIC AND HEMATOLOGICAL DISEASE

Figen TUNALI TURKDOGAN¹, Murat DOGAN², <u>Kenan Ahmet TURKDOGAN³</u>

¹Adnan Menderes University, Department of Radiology, Aydin, TURKEY ²Adnan Menderes University, Department of Otorhinolaryngology, Aydin, TURKEY ²Adnan Menderes University, Department of Emergency Medicine, Aydin, TURKEY

Aim: Epistaxis is one of the most frequent emergency situation in the emergency department which can arise in different clinical forms that can vary from patient's impaired comfort to agitation. In particular, recurrent epistaxis sometimes confronts the patient with the emergency physician. Our aim here is to investigate the etiology of epistaxis of patients with nontraumatic and nonhypertensive who have radiologic images.

Methods: Files and radiological imagings of 215 patients who applied to our emergency department with epistaxis between 1.1.2016-1.1.2018 were retrospectively investigated. Sixty-eight patients with radiological imaging were included in the study. Patients with trauma, hematologic disease, and hypertension were excluded from the study. The remaining 26 patients' files and radiological images were noted.

Results: 22 (84.6%) of 26 patients were male and mean age was 54.7 ± 22.2 , mean hemoglobin value was 12.3 ± 2.5 , mean hematocrit value was 37.7 ± 7.0 , and mean platelet value was 266.4 ± 98.7 . When the brain and paranasal computerized tomography of the patients are examined; 11 (42.3%) patients diagnosed as septum deviation, 3 (11.5%) patients diagnosed as nasal polyp, and 12 (46.2%) patients' CT results were evaluated as a normal.

Conclusion: As a result, septum deviations are predominant in the study of etiology in the patient group without trauma, hematological malignancy and hypertension. Emergency physicians are advised to direct patients to ear, nose and throat polyclinics to prevent morbidity and improve quality of life for patients with recurrent hemorrhages.

OP-07

The Evaluation of Risk Factors of Postpartum Depression

Güzin Zeren Öztürk¹, <u>Turan Se</u>t²

¹Şişli Hamidiye Etfal Training and Research Hospital, Family Medicine Clinic, Specialist

²Karadeniz Technical University, Family Medicine Department, Professor

Introduction: Postpartum depression is a mood disorder that can affect women after childbirth. Mothers with postpartum depression experience feelings of extreme sadness, anxiety, and exhaustion that may make it difficult for them to complete dailycare activities for themselves or for others. Postpartum depression effects %5-20 of pregnancy. In Turkey; we screen mothers with The Edinburgh Postnatal Depression Scale (EPDS) in their first visit of postpartum in primary care. EPDS is a questionnaire originally developed to assist in identifying possible symptoms of depression in the postnatal period. In this study; we examine postpartum depression according to the scores of EPDS and the evaluation of risk factors of postpartum depression.

Methods: This was a prospective study on postpartum women in their first visit of primary care on June to December 2017. We were produced a questionnaire that contains sociodemographic features, pregnancy properties and life history. We were applied the questionnaire after verbal permission than EPDS were performed to all participants. Data were entered into the statistical program, analyzed by chi-square and Student-t tests, and p <0.05 was considered significant.

Result: 128 mothers were included to our study. The mean age was 28.53 ± 5.35 . Most of them were in the second gravidity (n=53; 41.4%). 11(8.6%) of mothers were 12 points and over according to EPDS. All of them were referred to psychiatry clinic. There was no relation between EPDS scores and education statue, economic statue, breast feeding problems, newborn gender and weight but related with smoking, have problems with husband, first weight at pregnancy and age of mother (Table-1). When age and first weight at pregnancy is greater their EPDS scores were greater too.

Conclusion: When a woman is a smoker, overweight, have problems with husband will have greater scores of EPDS. And also EPDS scores were greater with increase at mother's age. When a pregnant has this situation we must follow her closely for postpartum depression.

	EPDS<12	EPDS≥12	Р
Age	28.2±5.3	32±4.8	0.029
First weight at pregnancy	63.6±11.8	70.8±14.1	0.049
Smoker Yes No	6 111	4 7	<0.001
Have problems with husband			
Yes No	79 38	9 2	0.004

Table 1. The evaluation of risk factor on EPDS
Diagnostic hypersomnia with bilateral talamic infarction without having any relationship with acute cranial trauma at emergency cases

<u>Mehmet Tevfik Demir¹</u>, Murat Güzel¹, Alper Arslan²

¹Samsun Training and Research Hospital, Department of Emergency Medicine, Samsun Turkey

²Samsun Training and Research Hospital, Neurology Department, Samsun Turkey

Case: 42 year old male attended to Emergency Department with a trauma history of falling down from a horse by a cranial trauma. He was unconcious, frequently yawning, sleeping and having difficulty to arause. There were no neurological deficit related to that acute cranial trauma. In our patient, there was no infexion, or any toxic and metabolic encephalopathy. In the medical history of a patient there were no pathological findings. Computed tomography results were showed that: there was no sinificant finding related to acute cranial trauma. Diffusion MRI results: On the both sides of anterior half of thalamus, there were approximately simetrical diffusion deficiency areas with the 15x30 mm sizes. In that localization there was not any sign of calsification.

Our patient was diagnosed by ischemic cerebrovasculary disease by Neurology Department and hospitalized. There is an evident diagnostic confusion among physicians due to wide range of sensorium impairment from hypersomnia to coma secondary to a bilateral thalamic infarction (1,3). In these specific conditions, at the early stagesof diagnosis, diffusion weighted (DW) MRI is a chance for early diagnosis of these kind of pathologies which leads to earlier intervention that can decrease the risk of occurance of deep coma due to involvement of the rostral midbrain and long-term cognitive dysfunction including thalamic dementia (1.2.3)

Especially hypersonnia without focal neurological deficiency cases, we have to focus on the possibility of ischemia without any cranial trauma. For this purpose, in the early diagnosis Diffusion MRI has to be preferred as the best choice of radiology. By that way the risk of stupor to coma process can be prevented. In thalamic infarktions, at the stage of diagnosis and treatment, comparing the relationship of loss of neurons and time, the confusion in diagnosis and retardation in time will be a reasoning for unexpected pathological neurological deficiencies in the patients prognosis.

At least, we have to keep the thought of infarctions related to the neurovascular cases in the patients which attends to emergency department by a trauma history without having any acute cranial trauma that can be the explanation of hemorrhage and loss of concious.

Reference

1. Honig, A., R. Eliahou, R. Eichel, A. A. Shemesh, T. BenHur, and E. Auriel 2016. Acute bithalamic infarct manifesting as sleep-like coma: a diagnostic challenge. J. Clin. Neurosci. 34:81–85.

2. Schellinger PD, Bryan RN, Caplan LR, Detre JA, Edelman RR, Jaigobin C, Kidwell CS, Mohr JP, Sloan M, Sorensen AG, Warach S;Neurology. 2010 Jul 13;75(2):177-85.Evidence-based guideline: The role of diffusion and perfusion MRI for the diagnosis of acute ischemic stroke: report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology.

3. Osman M, Abdalla A, Al-Qasmi M, Bachuwa G.A case of hypersomnia due to bilateral thalamic stroke. Clin Case Rep. 2017 Aug 24;5(10):1722-1723.

* 2. Uluslararası Acil Tıp ve Aile Hekimliği Sempozyumu, 15-18 Mart 2018, Kiev, Ukrayna

Cervical Dystonia Presented with Cerebellar Ischemia

Mustafa CEYLAN¹, Zeynep GOKCAN CAKIR²

¹Department of Neurology, Atatürk University School of Medicine, Erzurum, Turkey.

²Department of Emergency, Atatürk University School of Medicine, Erzurum, Turkey.

Introduction

Cervical dystonia is characterized by an involuntary, sustained contraction of cervical muscles. This abnormal movement causes abnormal posture of the head, neck and shoulders with accompanying pain (1). The majority of cases are idiopathic whereas various causes such as perinatal, vascular, traumatic, infectious and drug-induced conditions cause secondary CD (2). Dystonia complicating acute brain injury has been reported, among others, in patients with pontine hemorrhages (3), basal ganglia infarcts (4.5), central nervous system (CNS) infections (6), and posttraumatic injury (7), cerebellar hemorrhage (8). We present a case with cervical dystonia developed after cerebellar ischemia.

Case Report

A forty-eight years old male patient was admitted to outpatient clinic with vertigo, nausea, vomiting, reeling and new onset of involuntary movement in the neck region which started one day ago. Neurological examination showed horizontal nystagmus, dysarthria and dystonic movements of the neck along with normal consciousness, orientation and cooperation (figure 1). Ataxia was bilateral although more severe on the left. Patients was having medication of candesartan/hydrochlorothiazide for hypertension. The patient had never been treated with neuroleptics or anti-emetics. In diffusion MRI, bilateral cerebellar hemispheric infarcts with left cerebellar prominence, bilateral vermis infarcts and left inferior occipital lobe infarct were detected (figure 2). Patient was accepted to clinic for treatment of the cerebrovascular disease.

Discussion

The pathogenesis of primary or secondary dystonia is still not completely understood. It was thought to be a disorder of the basal ganglia (9). However, along with the basal ganglia, the cerebellum has been shown to contribute to the pathophysiology of dystonia (10). Cerebello-thalamo-cortical network was found to be associated with the underlyingdystonic phenomenon (11). In animal studies association between dentate nucleus and striatum was showed (12). A descending pathway was found from basal ganglia to the cerebellum (13). It has been proposed that cerebellar outputs alter basal ganglia activity, leading to dystonic movements (14). Cases of cervical dystonia with cerebellar ischemia were reported in the literature (15). In our case there was no reason of development of acute dystonic disorderother than cerebellar ischemia. Ischemia was present in bilateral dentate nucleus. The interesting side of our case was its initial presentation as movement disorder.

Conclusion

Secondarydystonia cases are occasionally encountered in ERs. Despite the presence of neuroleptic and anti-emetic usage as the cause, cerebellar pathologies should also be considered as potential culprit.



Figure 1. Dystonic neck movements of the case; neck rotation with shoulder elevation.



Figure 2. Diffusion MRI of the case with ADC map (A) and b-1000 image (B) shows bilateral dentate nucleus lesions of the cerebellum (arrows).

Kaynak

1- Fahn S, Marsden CD, Calne DB. Classification and investigation of dystonia. In: Marsden CD, Fahn S, eds. Movement disorders 2. London: Butterworth, 1987:332–358.

2- Singer C, Velickovic M (2008) Cervical dystonia: etiology and pathophysiology. NeurolClin 26(Suppl 1):9–22.

3- LeDoux MS, Brady KA. Secondary cervical dystonia associated with structural lesions of the central nervous system. MovDisord 2003;18:60–69.

4- Kwak CH, Jankovic J. Tourettism and dystonia after subcortical stroke. MovDisord 2002;17:821-825.

5- Molho ES, Factor, SA. Basal ganglia infarction as a possible cause of cervical dystonia. MovDisord 1993;8:213-216.

6- Factor SA, Troche-Panetto M, Weaver SA. Dystonia in AIDS: report of four cases. MovDisord 2003;18:1492–1498.
7- Biary N, Al Deeb SM, Aabed M. Post-traumatic dystonia. Ann Neurol 1991;30:297.

8- N. Usmani, G. S. Bedi, C. Sengun, A. Pandey, C. Singer. Late onset of cervical dystonia in a 39-year-old patient following cerebellar hemorrhage. J Neurol (2011) 258:149–151.

9- Marsden CD, Quinn NP. The dystonias. BMJ 1990;300:139-144.

10-Neychev VK, Fan X, Mitev VI, Hess EJ, Jinnah HA. The basal ganglia and cerebellum interact in the expression of dystonic movement. Brain 2008; 131:2499–2509.

11-Niethammer M, Carbon M, Argyelan M, Eidelberg D. Hereditary dystonia as a neurodevelopmental circuit disorder: Evidence from neuroimaging. Neurobiol Dis 2011;42:202–209.

12-Hoshi E, Tremblay L, Feger J, Carras PL, Strick PL. The cerebellum communicates with the basal ganglia. Nat Neurosci 2005;8:1491–1493.

13-Bostan AC, Strick PL. The cerebellum and basal ganglia are interconnected. Neuropsychol Rev 2010;20:261–270. 14-Neychev VK, Gross RE, Lehe'ricy S, et al. The functional neuroanatomy of dystonia. Neurobiol Dis 2011;42:185–

201.
15-Zadro I, Brinar VV, Barun B, Ozretić D, Habek M. Cervical dystonia due to cerebellar stroke. MovDisord. 2008 Apr 30;23(6):919-20.

OP-10 INVESTIGATION OF PEDIATRIC CEREBROSPINAL TRAUMAS

Mürteza Çakır¹, Çağatay Çalıkoğlu¹, <u>Zeynep Gökcan Çakır²</u>

¹Assistant Prof, MD, Atatürk University Medical School Neurosurgery Department, Erzurum, Turkey

²*Prof, MD, Atatürk University Medical School Emergency Department, Erzurum, Turkey*

Introduction: Cerebrospinal traumas are 3rd most common reason of mortality and morbidity among pediatric patients. Etiology of traumas consist of falling, hitting, motor vehicle accident and abuse, mostly. Therefore, evaluation of the symptoms must be performed mindfully and treatment must be planned carefully.

Aim and Method: In the present study, cases of possible cerebrospinal injury were collected. The present study were performed between 1.1.2016 and 6.30.2016. Patients who were admitted to the emergency room and who had possible cerebrospinal injury (falling, hitting, motor vehicle accident, pounding etc.) between 0-16 year-old were traced retrospectively. 971 (male: 609, female: 362) cases were reached in total. Parameters investigated were age, wheter the case was judicial, history, symptoms, signs and required consultations.

Findings: In total 971 cases, male dominancy was remarkable (n609>n362). Age distrubition is shown in the table below.



As it is shown in the histogram, most of the cases accumulated around 1 year-old, the period of learning to walk. Other two peaks were observed at around 5-7 and 10-12 year-old, school age and puberty respectively. Types of traumas were divided into two groups, first group was including to fall, and the second was including hitting to an object, striking by an object, or motor vehicle accident. Cases of falling was more then the others. 685 of 971 patients' first complaining was cerebrospinal trauma suspicition and/or fear. In physical examination revealed positive findings in 580 of the cases. In 98 cases, neurosurgery were consulted. 51 of them hospitalized to observation room in emergency medicine department or the neurosurgery department. Respectively, 11, 12, 12, 4, patients were hospitalized to the orthopedics, pediatric surgery, ophtalmology, plastic and reconstructive surgery clinics. 173 of the cases were judicial.

Conclusion: The neurosurgery was consulted 10% of the cases. and 5% of the cases were admitted to the relevant clinics. These results shows that possible cerebrospinal injury cases must be evaluated very carefully.

SEASONAL VARIATIONS in SERUM 25-OH VITAMIN D LEVELS and RELATED BIOCHEMICAL PARAMETERS IN HATAY PROVINCE

<u>Oğuzhan ÖZCAN¹</u>, Pınar Döner GÜNER², Bahar ÜNLÜ¹, Fatma Nur GÜLAÇTI², Abdullah ARPACI¹

¹Mustafa Kemal University, Faculty of Medicine, Department of Medical Biochemistry -Turkey

²*Mustafa Kemal University, Faculty of Medicine, Department of Family Physician –Turkey*

Background: Vitamin D is a fat-soluble vitamin, also classified as pro-hormone, and plays a central role in maintaining calcium homeostasis. It is produced photochemically in the skin from 7-dehydrocholesterol by the action of sunlight in most geographical locations. In this study we evaluated the seasonal variations of serum 25-OH vitamin D levels and related biochemical parameters according to age and gender in Hatay Province, with latitude of 36.2 in southernmost region of Turkey.

Methods: The 25-OH vitamin D and serum calcium, ionized calcium, parathormon, phosphorus and magnesium levels of a patients admitted to our hospital between 01.01.2016-31.12.2017 were investigated retrospectively through the laboratory information system. All subjects were divided into four group according to vitamin D levels as follows: group I, deficient (vit D level < 10ng/lL); group II, insufficient (Vit D levels between 10-20 ng/ml); group III, normal (Vit D levels between 20-80 ng/ml) and group IV, high (vit D level > 80 ng/mL). Patient's ages and gender were also recorded. All groups were compared across various seasons according to gender and age.

Results: A total of 7646 adult females, 2402 adult male and 1516 children under 18 years old, respectively, entered in the study. The mean serum 25-OH vit D levels were 18.5 ± 13.5 ng/ ml in children and significantly higher than those of men (16.4 ± 11.9 ng/ ml, p<0.001) and women (14.7 ± 12.03 ng/ ml, p<0.001) patients (Table 1). Woman patients had higher rate of vitamin D deficiency (69 %) compared to men (19.9 %) and children (11.1 %). The mean 25-OH vitamin D levels in the summer and in the autumn were higher than those of winter and spring (p< 0.001) (Figure 1). There was a significant correlation between vitamin D and PTH, calcium and phosphor levels but not ionized calcium levels.

Conclusion: In this study we found that there was a significant seasonal variations of vitamin D levels in geographic regions of Hatay Province. The patients are at high risk of vitamin D deficiency during the winter and the spring months compared to the autumn and summer mounts.

Key Words: Vitamin D deficiency, 25-OH Vit D, Calcium homeostasis

Groups	Adults		Children			
	Male		Female			
Laboratuvar parameters	n	mean \pm SD	n	mean \pm SD	n	mean \pm SD
Vit D level ng/mL	2402 (20.8%)	16.4 ±11.9a	7646 (66.1%)	14.7±12.03b	1516 (13.1%)	18.5±13.5c
PTH pg/ml	361	76.9±186.9a	1251	81.8±157.7 a	281	42.7±88.8 b
Calcium mg/dl	1196	9.07±0.68a	3608	9.06±0.63a	1145	9.31±0.65 b
Ionised Ca mmol/L	63	0.91±0.28 a	78	0.95±0.21 a	131	4.8±0.97 a
Phosphorus mg/dl	766	3.62±0.99 a	2479	3.60±0.80 a	817	0.87±0.21 b
Magnesium mg/dl	603	1.98 ±0.38 a	1508	1.94 ±0.30 a	614	2.07 ±0.33 b

Table 1. Comparisons of the serum 25-hydroxyvitamin D levels and related laboratory parameters in adults and children

Different letters show the significant difference between groups (p < 0.001)



Assessment of Preconseptional Care Status of Pregnant Women Attending to Obstetrics and Gynecology Department of a Medical Faculty

Selman Demirci, <u>Elif Ateş</u>, Turan Set KTÜ Tıp Fakültesi, Aile Hekimliği Anabilim Dalı

Aim: In this study, it is aimed to evaluate the preconceptional care status of pregnants.

Material method: This research is a cross-sectional, descriptive study that was performed between July 2017 and December 2017 at Department of Obstetrics and Gynecology. 207 volunteer pregnant women were included in the study. Participants were administered a questionnaire, prepared by researchers, consisting of 40 questions that assessed participants' sociodemographic characteristics and preconceptional care situations with a face-to-face interview technique.

Findings: The mean age of the 207 pregnants was 30.8 ± 5.7 . Scheduled pregnancy rate was 70.5% (n= 146) of the participants. The rate of the participants who answered the question "Were you asked "Do you intend to conceive in the next one year?" by healthcare professionals" as "Yes" was 17.9% (n= 37). 34.8% of the participants (n= 72) had information from the physicians regarding the prevention methods during the period when they didn't plan pregnancy. 26.1% (n= 48) of folic acid users started folic acid before pregnancy and 73.9% (136) of them started folic acid after getting pregnant. 29.5% (n= 61) of the participants had a known chronic disease. The rate of getting informed about the necessity of controlling the disease when planning a pregnancy was 62.9% (n= 39). Answers for the question "From whom do you want to get preconceptional care?" were from gynecologists and obstetricians with 58% from the family physicians with 38.2% from the book / internet with 2.9% from television with 1%.

Conclusion: In our study, we concluded that the pregnant women get counseling low in terms of preconceptional care parameters. There is a great need for studies and projects that bring up this result to agenda of family physicians who are primer interlocutors in giving preconceptional care to every woman in reproductive age.

Keywords: preconceptional care, pregnancy, primary health care, folic acid

Stabilization of Distal Tibia Metaphysis Extra-Articular Fracture Accompanying Soft Tissue Defect in the Medial Supramalleolar Area and Wound Management: A Case Report

Dr. Erdem Yunus Uymur¹, <u>Dr. Ayça Şahin Çalbay²</u>, Dr. Ahmet Köse¹, Dr. Aslıhan Hoşgör³

¹Orthopedic Surgeon, Department of Orthopedics and Traumatology, Region Research and Education Hospital, Erzurum, Turkey

²Emergency And First Aid Physician, Department of Emergency Medicine, Erzurum Regional Training and Research Hospital, Erzurum, Turkey

³Family Doctor, Horasan Farabi Family Health Center, No:9 Family Health Unit, Horasan, Erzurum, Turkey

Objective:

This study aimed to present the case of a patient with distal tibia metaphysis extra-articular fracture accompanying soft tissue defect.

Material and Method:

A 19-year-old patient who fell from a horse 3h ago was evaluated in the emergency department of a tertiary trauma hospital. He had left tibia distal metaphysis extra-articular fracture with a wound of 5×3.5 cm2 on the medial side of the supramalleolar region. Rapid wound care was applied with long leg splinting. Required medical treatment was immediately started. Distally wedged tibial nailing fixation and interlocking using distal supportive bolt locking screw of the nailing system were performed at the 40th hour of initial trauma. The bolt screw surface was covered with available soft tissues of the wound.

Standard intramedullary nailing that needs at least two distal interlocking screws for fracture stabilization could not be performed in the present case because of the lack of skin coverage on the medial side of the supramalleolar region, which could lead to infective complications.

Then, the treatment was continued using the vacuum-assisted closure (VAC) system for 12 days. Next, soft tissue reconstruction was done using the Yin-Yang flap whose sutures were removed 20 days later.

Two months later, a dynamization procedure was performed on the patient, whose skin defect was resolved. Fracture healed in the postoperative fifth month. The wound was stable in the postoperative 13th month.

Findings:

Distal supportive bolt locking screw was inserted most distally and covered with available soft tissue to stabilize distal tibial metaphyseal extra-articular fracture accompanying skin defect in the supramalleolar region. Possible infections due to the exposure of distal interlocking screws of standard nailing fixation were prevented. A powerful fixation was achieved using the aforementioned nailing system.



Figure 1:

Upper images (1): (a)Preoperative, (b)postoperative, (c)postoperative 5-month-old, in which union is present, and (d)postoperative 13-month-old x-ray image, in which union is completed.

Lower images (2): (a)Skin lesion before, (b)and after reconstruction, and (c)skin condition in the postoperative fifth month when the wound is stable.

Conclusion:

Primarily, external fixation is planned for patients with similar clinical symptoms. Next, reconstructive attempt for wound coverage following VAC or other types of wound care applications is performed. Further, simultaneous and/or later definitive fracture fixation is planned. So, at least three operations are considered for the treatment. Favorable results have been obtained with relatively lesser attempts by rigorous wound care and two operations of lesser duration.

This fixation system not only created quite stable fixation to restore osseous pathology, but also could create a suitable environment to resolve soft tissue defect via proper treatment options and strategies.

Conflict of Interest: None declared.

THE EFFECT OF VASCULAR RISK FACTORS ON INTRACRANIAL BLEEDING AFTER THROMBOLYTIC TREATMENT

<u>Yusuf İnanç¹</u>

¹Gaziantep University Faculty of Medicine is a department of neurology

Objective: Stroke is a serious cause of mortality and disability. It also is a cause of caregivers' burden. At the same time it creates a great burden on the health economy. Significant improvements in the diagnosis, treatment and care of patients with ischemic stroke in the acute period have been reported in the recent years. Intravenous (IV) thrombolytic therapy using by the recombinant tissue plasminogen activator (r-tPA Alteptase) is one these reported treatments. The aim of this study is to compare the vascular risk factors of acute ischemic stroke patients between those developed or not developed intracranial hemorrhage after IV thrombolytic therapy.

Materials and Methods: Between 2013-2017 years, 160 patients who admitted to Gaziantep University Medical Faculty Emergency Department with acute ischemic stroke diagnosis and treated by IV thrombolytic therapy in within the first 4.5 hour after the onset of stroke symptoms were eveluated retrospectively. Possible intracranial hemorrhagic complication was evaluated by computerized tomography. Stroke patients who were not treated by thrombolytic therapy due to any contraindication or other reason were not included the study.

Findings: 104 were males and 56 were females. The mean age was 61.1 ± 13.3 (Min-Max, 24-80). Intracranial hemorrhage was observed in 35 patients (21.9%) after treatment. Symptomatic hemorrhage was detected in 28 cases (17.5%) and asymptomatic were 7 (4.4%). Mean age of those with bleeding was 65.5 years and non-bleeding was 59 years. The mean time interval to receive TPA was 2.4 hours for both groups with and without bleeding. Intracranial hemorrhage was observed in 30 patients among 133 patients (22.5%) with anterior circulation infarction and 5 of 27 patients (18.5%) with the posterior circulation infarction.

The mean NIH score for the group with and without hemorrhage was 15 and 13 respectively, at the time of admission. When risk factors and comorbidities were evaluated, bleeding was observed in 13 patients (23%) of 56 patients with diabetes, 29 patients (25.8%) of 112 patients with hypertension, 9 patients (20%) of 44 patients with smoking, 17 patients (15.7%) of 112 patients with hyperlipiemia, 22 patients (28%) of 76 patients with coroner artery disease, 1 patients (0.89) of 112 patients with alcohol-consuming, 14 patients (28.5%) of 49 patients with atrial fibrillation, 10 of the 44 patients were with stroke history (22.7%). There was no statistically significant difference between the groups with or without bleeding in terms of comorbidities and risk factors (p > 0.05). 2.5% of patients who received thrombolytic therapy (2.5%) died. 3 of those patients (75%) were with intracranial hemorrhage. The rates of participants whose 3rd month modified rankin scale (disability scale) score between 0-2 were 40% and 67% in groups of with and without bleeding, respectively (P < 0.005).

Conclusion: IV trombolithic therapy with r-tPA is easy, effective and a safe treatment choice at the first 4.5 hours time period of acute ischemic stroke. Determination of eligible patients for r-tPA can reduce disability due to stroke and increase the number of functionally independent patients. Bleeding is a complication of IV trombolithic therapy. We did not observe significant difference between the groups with or without bleeding in terms of comorbidities and risk factors.

"Aile Sağlığı Merkezinde Arrest Yönetimi Kursu" Öntest ve Sontest Sonuçlarının Değerlendirilmesi

<u>Yücel UYSAL¹</u>, Murat Fazıl SOYAL², Oğuzhan ÖZCAN³, Ertan MERT¹

¹Mersin Üniversitesi Tıp Fakültesi Aile Hekimliği Anabilim Dalı

²Mersin Şehir Hastanesi Çocuk Acil Servisi

³Mustafa Kemal Üniversitesi Tıbbi Biyokimya Anabilim Dalı

Giriş ve Amaç

Acil sağlık problemlerinin önemli bir kısmı ani ve beklenmedik şekilde ortaya çıkmakta ve zamanında gerekli düzeltici girişimler yapılamadığında arrestle sonuçlanmaktadır. Bu tür vakalar bazı durumlarda Aile Sağlığı Merkezlerine (ASM) başvurmakta veya getirilmektedir. ASM'de görevli hekimlerin acil hastaların ileri merkezlere nakilleri gerçekleşinceye kadar, sahip oldukları sınırlı olanaklara rağmen yaşamı tehdit eden sağlık problemlerini yönetme, vital stabilizasyonu sağlama ve gerektiğinde temel ve ileri yaşam desteği uygulamalarına başlama sorumlulukları bulunmaktadır. Birinci basamakta acil durumların yönetim sürecinin temelinde 'vital stabilizasyonun sağlanması ve sürdürülmesi' bulunmaktadır. Bu çalışmada, bir eğitim ve araştırma platformu olan Mini Tıp Akademisi'nin eğiticileri tarafından Aile Hekimlerine yönelik düzenlenen "Aile Sağlığı Merkezinde Arrest Yönetimi" kurslarında kurs öncesi ve kurs sonunda uygulanan öntest ve sontest sonuçlarının değerlendirilmesi sunulmuştur.

Yöntem

Kurs içeriğinde yer alan ve "olmazsa olmaz / kırmızı bayrak / baraj konular" olarak belirlenen dokuz başlıkta 10 soru öntest ve sontestin soruları olarak kursiyerlere sunulmuştur. Çoktan seçmeli olarak düzenlenen soruların kapsadığı başlıklar şunlardır;

- kompanze şokun tanısı
- üst hava yolu tıkanıklığının tespit edilmesi
- çocuklara adrenalin uygulama dozunun hesaplanması
- çocuklarda şok bulgularının değerlendirilmesi
- adrenalinin arrest yönetimindeki etki mekanizması
- defibrilasyon endikasyonları
- kalp masajının derinlik, hız ve diğer uygulama teknikleri
- çocuklarda ve erişkinlerde defibrilasyon uygulama teknikleri
- balon maske uygulama teknikleri

Bulgular

Mayıs 2017 - Şubat 2018 arasında 9 ay içerisinde toplam 118 aile hekimine uygulanan kurslardan toplanan veriler analiz edilmiştir. Kursiyer arasında pratisyen aile hekimleri, aile hekimliği asistanları ve uzman aile hekimleri yer almıştır. Her sorunun değeri on puan olarak belirlenmiş ve test sonuçları 100 üzerinden değerlendirilmiştir. Kursiyerlerin öntest ortalaması (ort. \pm SD) 44.3 \pm 11.2 ve sontest ortalaması 79.4 \pm 9.3 olarak bulunmuştur (p<0.05).

Sonuç

Katılımcıların öntest ortalaması yüz üzerinden 44.3 bulunmuştur. Ortalama olarak değerlendirilecek olursa; kurs öncesinde her bir kursiyer arrest yönetim sürecindeki kritik (olmazsa olmaz) olarak belirlenen on başlıktan sadece 4'ünü bilgi veya beceri olarak kavramışken kurs sonrasında ortalama her kursiyer bu on başlıktan 8'ine bilgi ve beceri olarak hakim olabilmiştir. Arrest yönetim sürecinde ele alınan bu başlıklardan bir tanesinin bile bilgi veya beceri olarak uygun şekilde tatbik edilememesinin vakanın yeniden canlandırma başarısı üzerindeki etkisi düşünüldüğünde katılımcıların bu alandaki eksikliğinin belirgin olduğu görülmüştür. Girişimin hayati önemi gözönüne alındığında, bu konudaki öğrenim bilgi ve beceri hedefinin yüz üzerinden 100 olması gerektiği düşünülmektedir.

Evaluation of Safety Measures Against Home Accidents According To Sociodemographic Factors Among Mothers Who Has 0-6 Years Old Toddlers

Zehra ASLAN AYDOĞDU, Elif ATEŞ, Turan SET

Karadeniz Technical University Family Medicine Department, Trabzon, Turkey

Introduction: Accidents and injuries are an important public health problem that must be taken into consideration, especially in childhood, because it can be avoided. House accidents are common among accidents. Children and 0-6 years children are at risk for home accidents in term of developmental periods. It is aimed to compare the socio-demographic characteristics of mothers of 0-6 age group with the safety measures they have taken against house accidents.

Material method: Our study was performed between July 2017 and December 2017 in the Trabzon Province Kalkınma Family Health Center. 244 female volunteers with 0-6 age group were included in the study. Participants' demographic information questionnaire and 'the Scale for Recognizing Security Measures for Home Accidents in 0-6 Age Children' were done through face to face interview.

Findings: The mean age of the participants was 30.8 ± 5.4 years. The rate of the mothers who had a home accident was found to be 42.6% (n = 104). The following most common type of accident was the burning with 15.9% (n = 18), poisoning with 6.2% (n = 7), cutter penetrating tool injury with %4.4 (n = 5), electric shock with 3.5% (n = 4), drowning with 1.8% (n = 2), falling object over child with 0,9% (n = 1) of the other injuries. The mean scores of the scales were 176,6 ± 16,2. A significant difference was found between the scale scores of the subjects in terms of educational status (p = 0,049). It was found that university and higher education students got the highest score from the scale. There was a significant difference between the scores of the families in terms of income status (p = 0,015). There was no statistically significant correlation between the number of children and scale point (r=-0,067, p = 0,299).

Conclusion: Because of childhood accidents can be avoided, they should be studied sensitively. To raise awareness of the family members responsible for the care of the child and ensuring that the necessary precautions are taken in the home will enable the children to be protected from accident.

Keywords: home accidents, 0-6 year old, mother

TAM METIN BILDIRILER

Tam Metin Bildiri-01

DİYABET POLİKLİNİĞİNDE İZLENEN HASTALARDA KARDİYOVASKÜLER MORTALİTE VE MORBİDİTE ORANLARININ RİSK FAKTÖRLERİ İLE İLİŞKİSİNİN DEĞERLENDİRİLMESİ (Tezden üretilmiş tam metin makale)

(EVALUATION OF RISK FACTORS OF CARDIOVASCULAR MORTALITY AND MORBIDITY RATES IN THE PATIENTS FOLLOWED UP IN DIABETES CLINIC)

Cüneyt ARDIÇ, MD.

Department Recep Tayyip Erdoğan University Faculty of Medicine Department of Family Medicine

GİRİŞ:

Diyabetes Mellitus prevelans ve insidansı yüksek bir hastalıktır. DM'nin mikroanjiyopatik komplikasyonları konusunda bugün çeşit çeşit tartışmalar yaşanıyor. Tartışmaların bir bölümü klinik tablo ve seyir ile patogenez arasındaki çelişkilere dikkati çekerken, diğer bölümü olayları ne yazık ki fenotipik faktörlerin ağırlığında aramaktadır. Ancak, klinik bilgilerimiz moleküler düzeydeki verilerle zenginleştikçe ve bunlar deneysel çalışma sonuçları ile de desteklendikçe hiperglisemi, hemodinami, hipertansiyon, dislipidemi, böbrek dokusunda hücresel ve moleküler değişiklikler ve insüline duyarlılığın değişmesi gibi fenotipe ait süreçlerde arama kolaylığına kaçmış araştırmacılar bile savlarında kuşku duymaktalar.

Teknolojik gelişmeler, yeni ilaçlar ve hastalığın nedenlerini anlamaya yönelik yapılan tüm çalışmalara rağmen günümüzün en önemli sağlık sorunlarından biri olma özelliğini korumaktadır. Yaşam kalitesini bozucu, ilerleyici ve uzun süreli bir hastalık olması nedeniyle hastayı, hastanın en yakın çevresini; ilgili tüm sağlık ekibini; toplumu ve ülkeyi çok yakından ilgilendirmektedir. Birey ve ülke açısından maliyeti oldukça yüksek bir hastalık olma özelliğine sahiptir (1).

Diabetes mellitus, insülin salgısının mutlak veya göreceli eksikliği ya da insülin rezistansı ile oluşan, hiperglisemi ile kendini belli eden, karbonhidrat, yağ ve protein metabolizması bozuklukları ile karakterize bir hastalıktır. Etyopatogenez ile ilgili yapılan araştırmalar, hastalığın heterojen, hiperglisemi ile karakterize pek çok durumu içine alan bir sendrom olduğunu ortaya koymuştur. Tanı klinik semptomlar ve biyokimyasal bulgular ile konmaktadır.

Bu çalışmada 1991-2004 yılları arasında diyabet polikliniğimize başvuran hastaların mortalite ve morbidite oranlarının elimizdeki parametreler ile ilişkisini değerlendirmeyi amaçladık.

MATERYAL VE METOD

Çalışmaya 1991 ile 2004 yılları arasında Haseki Eğitim ve Araştırma Hastanesi Diyabet Polikliniğine kontrole gelen 2211 hasta alınmıştır. Hastaların diyabet açısından aile anemnezleri, sigara anamnezleri, hipertansiyon anamnezleri alınmıştır. Vücut kitle indeksleri hesaplandı (kg/m2).

Açlık kan glukozu, diyabet yaşı, ilk ve son kilo, ilk HbA1c, son HbA1c, ortalama trigliserid ve kolesterol değerleri ve hastaların ortalama kontrole gelme süreleri hesaplandı.

Diyabetin komplikasyonları araştırıldı. Periferik arter hastalığı, CVA, iskemik kalp hastalığı, som dönem böbrek yetmezliği (düzenli diyaliz programına giren KBY hastaları) ve mortaliteleri araştırıldı.

CVA geçiren hastalar nöroloji klinikleri tarafından tomografik bulgular ile CVA tanısı konulmuş nöroloji kliniği tarafından tedaviye başlanmış hastalar dahil edilmiştir.

İskemik kalp hastalığı; EKG, eforlu EKG, talyum sintigrafi, anjiografi yöntemleri ile iskemik kalp hastalığı tanısı almış ve by-pass operasyonu geçirmiş hastalar dahil edilmiştir.

Diyabetik hastalarda kardiyovasküler mortalite ve morbiliteye etkili olan faktörler değerlendirildi.

İstatistik yöntemler, sayısal veriler, ortalama -/+ standart sapma, sıklıklar yüzde olarak değerlendirildi. Ortalama -/+ standart sapmalar student t testi ile, sıklıklar kikare testi ile değerlendirildi. Multifaktöryel bulgular logistik regresyon ile değerlendirildi. P<0.05 istatistiksel olarak anlamlı kabul edildi.

BULGULAR

Çalışmaya alınan 2211 hastanın 1952'si Tip 2 DM, 206'sı Tip 1 DM, 4'ü slowyly program Tip 1 DM, 3'ü sekonder DM, 21'i Gestasyonel DM, 25'i de erken Tip 2 DM olarak gruplandırıldı.

2211 hastanın 1207'sinde (%54,6) birinci derece yakınlarında DM olduğu, 1004'ünde ise birinci derece yakınlarında DM olmadığı görüldü. Sigara anamnezleri sorgulandı. 525 hastada (%23,7) halen veya son 10 yıl içerisinde sigara kullandıkları 1686 hastada ise (%76,3) son 10 yıl içerisinde sigara içmedikleri saptandı. Hastaların 1041'inde (%47,1) hipertansiyon öyküsü yokken 1170'inde (%52,9) hipertansiyon öyküsü vardı.

Hastaların 34'ünde (%1.5) periferik arter hastalığı 7'sinde (%0,3) CVA, 594'ünde (26,9) iskemik kalp hastalığı, 43'ünde (%1,9) ölüm, 56'sında (%2,5) son dönem böbrek yetmezliği, 4'ünde (%0,01) CVA+İskemik kalp hastalığı, 1'inde KBY+İskemik kalp hastalığı, 1'inde

İskemik kalp hastalığı+CVA, 1154'ünde ise (%52,2) özellik saptanmadı. 291 hastaya (%13,2) ulaşılamadı.

Cinsiyet ayrımında 835'i (%37,8) erkek, 1376'sı (%62,2) kadın olduğu tespit edildi.

206 Tip 1 DM hastasının 114'ü (%55,3) kadın, 92'si (%44,7) erkek, 115'inde (%55,8) aile diyabet öyküsü yok iken 91'inde (%44,2) aile diyabet öyküsü mevcuttu. Aynı hasta grubunun 152'si (%73,8) sigara kullanmazken 54'ü (%26,2) sigara kullanıyordu. 103 hastada (%50) hipertansiyon saptanırken 103'ünde (%50) hipertansiyon yoktu.

Kardiyovasküler mortalite ve morbilite açısından değerlendirilen hasta grubunda 107'sinde (%51,9) özellik saptanmadı, 3'ünde (%1,5) periferik arter hastalığı, 59'unda (%28,6) iskemik kalp hastalığı, 2'sinde (%1) ölüm, 5'inde (% 2.4) KBY saptanırken 30 hastaya (%14,6) ulaşılamadı.

Tip 2 DM hasta grubunda ise 1952 hastadan 733'ü (%37,6) erkek, 1219'u (%62,4) kadındı. Aynı hasta grubunda 877'sinde (%44,9) ailede diyabet öyküsü yok iken 1075'inde (%55,1) ailede DM

öyküsü vardı. Hastaların 1492'si (% 76,4) sigara kullanmaz iken 460'ı (%23,6) sigara kullanıyordu. 923 hastada (% 47,3) hipertansiyon yok iken 1029'unda (%52,7) hipertansiyon mevcuttu.

Kardiyovasküler mortalite ve morbidite değerlendirmesi yapılan grupta 1020 hastada (%52,3) özellik saptanmadı, 30'unda (%1,5) periferik arter hastalığı, 4'ünde (%0,3) periferk arter hastalığı+iskemik kalp hastalığı, 7'sinde (%0,4) CVA, 1'inde (%0,1) CVA+iskemik kalp hastalığı, 25'inde (%1,3) iskemik kalp hastalığı+KBY, 49'unda (%2,5) KBY, 41'inde (%2.1) ölüm, 250'sine (%12,8) ise ulaşılamadı.

Çalışmada hastaların diyabet tanısı konulduktan sonra ne kadar süre içerisinde polikliniğimize başvurmalar ile gelişen kardiyovasküler mortalite ve morbiditeyi araştırdık. Buna gore DM tanısı aldıktan sonra ilk 0-1 yıl içerisinde başvuran 598 hastada 332'sinde (%55.5) özellik saptanmazken 266'sında kardiyovasküler morbilite ve morbidite olayına rastlanmıştır.

DM tanısı aldıktan sonra 2-5 yıl içerisinde başvuran 543 hastada 296'sında (%54,5) özellik saptanmazken 247'sinde (%45,5) kardiyovasküler morbilite ve morbidite olayına rastlanmıştır.

DM tanısı aldıktan sonra 5 yıl sonra başvuran 1070 hastanın 526'sında (% 49,2), 544'ünde (%50,8) kardiyovasküler morbilite ve morbidite olayına rastlanmıştır.

Bu üç grubun birbirleriyle karşılaştırılması sonucu DM tanısı aldıktan sonra ilk 2 yıl içerisinde başvuran hastalarda tanı aldıktan 5 yıl sonra başvuran hastalara oranla kardiyovasküler mortalite ve morbidite anlamlı derecede azalmaktaydı (p<0.008).

Hastaların aile anamnezleri ile kardiyovasküler morbilite ve morbidite oranlarını karşılaştırdık.

Ailede diyabet öyküsü olmayan 1004 hastanın 519'unda (%51,7) kardiyovasküler morbilite ve morbidite görülmez iken 485'inde (%48,3) kardiyovasküler morbilite ve morbidite olayına rastlanmıştır. Aile anamnezi (+) olan 1207 hastadan 635'inde (%52,6) kardiyovasküler morbilite ve morbidite gelişmez iken 1057'sinde (%47,8) kardiyovasküler morbilite ve morbidite görülmüştür. Bu iki hasta grubu karşılaştırıldığında p<0,668 olarak bulundu

Hastaların hipertansiyon anamnezleri ile kardiyovasküler morbilite ve morbidite oranlarını karşılaştırdık.

Hipertansiyonu olmayan 1041 hastanın 612'sinde (%58,8) kardiyovasküler morbilite ve morbidite gelişmez iken 429'unda (%41,2) kardiyovasküler morbilite ve morbidite görülmüştür. Hipertansiyonu olan 1170 hastanın 542'sinde (%46,3) kardiyovasküler morbilite ve morbidite gelişmez iken 628 hastada (%53,7) kardiyovasküler morbilite ve morbidite görülmüştür. İstatistiksel olarak iki grup arasında anlamlı fark bulunmuştur (p<0.001).

Son HbA1c düzeylerini 7'nin altında olan hastalar ile son HbA1c düzeyleri 7'nin üzerinde olanları karşılaştırdık. Son HbA1c düzeyi 7'nin altında olan 999 hedefi ulaşılmış hasta grubunda 522'sinde (%52,7) kardiyovasküler morbilite ve morbidite görülmez iken 469'unda (%47,3) kardiyovasküler morbilite ve morbidite gelişmiştir. 1220 hedef değere ulaşılamayan hasta grubunda ise 632 hastada (%51,8) kardiyovasküler morbilite ve morbidite gelişmezken 588'inde (%48,2) kardiyovasküler morbilite ve morbidite görülmüştür. Bu değerler karşılaştırıldığında istatistiksel ilişki bulunamanıştır (p<0.684).

Hedef trigsiserid değeri olarak; son trigliserid düzeylerinin 150mg/dl'nin altında olarak belirledik. Hedef değere ulaşılan 1293 hastadan 682'sinde (% 52,7) kardiyovasküler morbilite ve morbidite görülmez iken 611'inde (%47,3) kardiyovasküler morbilite ve morbidite gelişmiştir. Hedefe ulaşılamayan 918 hastanın 472'sinde (%51,4) kardiyovasküler morbilite ve morbidite görülmezken 446'sında kardiyovasküler morbilite ve morbidite gelişmiştir. İki grubun karşılaştırılmasında istatistiksel değer p<0,537 olarak bulundu.

Hedef kolesterol değeri olarak son LDL düzeyini <100mg/dl olarak belirledik. Hedefe ulaşılan 1175 hastanın 597'sinde (%50,8) kardiyovasküler morbilite ve morbidite gelişmezken 578'inde (%49,2) kardiyovasküler morbilite ve morbidite görülmüştür. Hedef değere ulaşılamayan 1039 hastanın 557'sinde (%53,8) kardiyovasküler morbilite ve morbidite görülmezken 479'unda (%46,2) kardiyovasküler morbilite ve morbidite gelişmiştir. İki grup karşılaştırıldığında istatistiksel değer p<0.165 olarak bulunmuştur.

Hastaların cinsiyetleri ile kardiyovasküler morbilite ve morbidite oranları arasındaki ilişkiyi araştırdık. 835 erkek hastanın 405'inde (%48,5) kardiyovasküler morbilite ve morbidite gelişmezken 430'unda (%51,5) kardiyovasküler morbilite ve morbidite görülmüştür.

1376 kişilik kadın hasta grubunda ise 749'unda (%54,4) kardiyovasküler morbilite ve morbidite gelişmezken 627'sinde (%45,6) kardiyovasküler morbilite ve morbidite görülmüştür. İstatistiksel olarak erkek cinsiyetinde kardiyovasküler morbilite ve morbidite anlamlı derecede fazla bulunmuştur (p<0.05).

TARTIŞMA

Çeşitli kaynaklardan elde edilen veriler, diyabetes mellitusun aterosklerozik hastalık ve özellikle koroner kalp hastalığı açısından yatkınlık oluşturan önemli bir faktör olduğunu göstermektedir. Diyabetiklerde, iki cinsiyette ve bütün yaşlarda kardiyovasküler hastalık insidansı daha yüksektir. Erkek cinsiyetin kardiyovasküler komplikasyon riski kadınlara oranla oldukça fazladır. Erkek cinsiyet risk faktörleri arasında yer almaktadır.

Çalışmamızda 2211 hastanın 835'i erkek (%37.8), 1376'sı (%62.2) kadındı. Kardiyovasküler mortalite ve morbidite açısından değerlendirilen gruplarda erkek cinsiyeti lehine anlamlı derecede fark bulundu. p<0.05

1983 yılında başlayan Diyabet Kontrol ve Komplikasyonları Çalışması (DCCT), haziran 1993'te bitirildi ve 1993 yılı sonu itibari ile sonuçları yayınlanmaya başladı. DCCT sonucunda Tip1 DM hastalarında; yoğun insülin tedavisi ile normal aralıklara olabildiğince yakın kan glikoz değerine ulaşılabilmesinin diyabetik retinopati, nefropati ve nöropatinin ortaya çıkışını geciktirebildiği ve gelişiminin yavaşlatılabildiği ortaya konuldu (1). Bu konu ile ilgili bir diğer çalışma 1998 yılında sonuçlanan UKPDS (United Kingdom Prospective Diabetes Study) Tip 2 DM için aynı sonuçları verdi.

Çalışmamızda hasta grupları 3'e ayrıldı. Bunlar; DM tanısı aldıktan ilk bir yıl içerisinde polikliniğimize başvuran hastalar, 2-5 yıl içerisinde polikliniğimize başvuran hastalar ve 5 yıl sonrasında polikliniğimize başvuran hastalardı. Çalışma sonucunda tanı aldıktan 5 yıl sonra

polikliniğimize başvuran hastalar ile kardiyovasküler mortalite ve morbidite arasında ilişki bulundu. P<0.008

Çalışmamızda hastaları son HbA1c düzeylerine göre gruplandırdık. Hedef HbA1c düzeyi olarak 7'nin altını kabul etttik. Gruplar; hedef HbA1c düzeyine ulaşılan hastalar ve ulaşılamayan hastalar olarak adlandırıldı. Hedef değere ulaşılmış 999 hastadan 522'sinde (%52.7) komplikasyon görülmezken 469'unda (%47.3) komplikasyon gelişmiştir. Hedef değere ulaşılamayan 1220 hastanın 632'sinde (%51.8) komplikasyon gelişmezken 588'inde (%48.2) komplikasyon görülmüştür. Hedef değerin üzerindeki HbA1c düzeyi ile kardiyovasküler mortalite ve morbidite arasında ilişki saptanmadı. P<0.684. Çalışmaya katılan hasta grubunda son HbA1c düzeyine ulaşılan hasta grubuna bakıldığında hastalarda, komplikasyon gelişmiş hastalarda daha fazla hedef HbA1c düzeyine ulaşıldığı görüldü. Bu hasta grupları Diyabetes Mellitusun önemini yaşam kaliteleri bozulunca ve komplikasyonları ortaya çıkınca anlayan ve tedbiri geç alan hastalar oluşturmaktaydı.

Obezite; insülin ilişkili glikoz kullanımında periferik direnç gelişmesinde ve glikoza Beta hücre duyarlılığını azaltmada etkindir. Kompansatuar hiperinsülinemi obez hastalarda membran insülin reseptörünün ekspresyonunda azalmaya neden olur (2).

Vücut yağının artması ile diyabet gelişme riskinin de arttığını gösteren çok sayıda çalışma vardır. ABD'de yalnızca erkek olguları içeren bir çalışmada vücut kitle endeksi <23 kg/m2 olanlara oranla, vücut kitle endeksiyle 25-26.9 kg/ m2 olanlara 2.2, vücut kitle endeksi >35 kg/m2 olanlara ise 42.1 kat daha fazla diyabet gelişme riskinin olduğu saptanmıştır (3,4).

Çeşitli kaynaklardan elde edilen veriler, diyabetes mellitusun, aterosklerotik hastalık ve özellikle koroner kalp hastalığı açısından önemli bir faktör olduğu bildirilmiştir. Kan basıncı, sol ventrikül hipertrofisi, total kolesterol, trigliserid ve VLDL koleterolü gibi öteki aterojenik risk faktörleri de diyabetiklerde, diyabetli olmayanlar göre daha yüksek bulunmuştur (5,6,7).

Çalışmamızda hipertansiyonu olmayan 1041 hastanın 429'unda (%41.2) kardiyovasküler mortalite ve morbidite gelişmezken hipertansiyonu olan 1170 hastanın 628'inde %53.7 kardiyovasküler mortalite ve morbidite görülmüştür. İstatistiksel olarak hipertansiyon ile kardiyovasküler mortalite ve morbidite arasında ilişki saptanmıştır. P<0.001

Yüksek tansiyon, kardiyovasküler mortalite ve morbidite ile çok yakından ilişkilidir. Diyabet gibi yaygın bir faktör eklendiğinde hipertansiyon daha erken çıkmakta ve daha agresif gelişmektedir.

Sigara içimi hiperlipidemiye, aterosklerotik gelişimde hızlanmaya, vücut karbonmonoksit ve karbondioksit seviyesini arttırarak genel iskemiye ve pıhtılaşma faktörlerini uyararak multifaktöryel yol ile ateroskleroz gelişimine yol açar.

Üçyüzellibini aşkın orta yaşlı erkeğin 6 yıl süreyle izlendiği MRFIT çalışmasında kan basıncı arttıkça koroner arter hastalığı riskinin arttığı ve sigara içilmesinin de her bir kategoride bu riski 2-3 kat daha arttırdığı saptanmıştır (8).

Çalışmamızda sigara kullanmayan 1686 hastanın 771'inde (%45.7) kardiyovasküler mortalite ve morbidite görülürken bu oran sigara içen 525 hastanın 286'sında (%54.5)'dir. İstatistiksel olarak sigara ile kardiyovasküler mortalite ve morbidite ilişki saptandı. P<0.001

Hipertrigliseridemi, kısmen diyabetik kontrolün derecesine bağlı olup, tedavi edilmemiş diyabetin bir göstergesidir. Hipertrigliserideminin diyabetik kişiler için aterosklerozu hazırlayıcı sebep olmasının nedeni bilinmemektedir. Bunun sebebi küçük VLDL-K partikülleri olabilir. Bununla beraber diyabetiklerdeki total kolesterol artışı, artmış VLDL kolesteral sentezi ve LDL kolesterol dönüşüm sebebi ile LDL kolesterolündeki artışla sonuçlandığından, diyabetiklerde total kolesterolün aterosklerotik riski diyabetik olmayanlara göre fazladır dememiz doğru olacaktır.

KAYNAKLAR:

1. Yılmaz C, Yılmaz T. İmamaoglu S. Yılmz C, Yılmaz T, İmamoglu Ş.(Ed.) Önsöz. Diabetes mellitus 2000. Gri tasarım. s: 9. 2000.

2. Vauhkonen I, Niskanen L, Vanninen E et al. Defects in insulin secretion and insulin action in non-insulin dependent diabetes mellitus are inherited, metabolic studies on offspring of diabetic probands. J din Invest 101: 86-96,1998.

3. Chan JM, Rimm EB, Colditz GA et al. Obesity, fat distribution and weight gain as a risk factor for clinical diabetes in men. Diabetes Care 1994: 17:961.

4. Perry IJ, Wannamiathee SG. Walker M et al. Prospective study of risk factors for development of non-insulin dependent diabetes in middle aged British men. British MedJ 1995; 310:560.

5. Yenigun M., Yaglar ve damar sertligi problemleri. Her yonu ile diabetes mellitus kitabından. Editor: Yenigun M., Nobel Tip Kitabevi. 1995, Istanbul. 351-408.

6. Yenigun M., Diyabetik kardiyovaskuler olaylann patogenezi, Kardiyovaskuler diyabet kitabından. Editor: Yenigun M: I.U. Basimevi Fil Merkezi, 1997, Istanbul, s:115-223.

7. Yenigün M., Diabetes mellitusun geç komplikasyonları. Her yönü ile diabetes mellitus kitabından. Editor: Yenigün M: Nobel Tıp Kitabevi, 1995, İstanbul, 546-584.

8. Fogelman AM, Schechter I, SeagerJ, et al. Malondialdehyde alteration of low denksity lipoproteins leads to cholestryl ester accumulation in human mo- nocyte-macrophages Proc. Nati Acad Sci USA 1980; 77:2214-8.

* 2. Uluslararası Acil Tıp ve Aile Hekimliği Sempozyumu, 15-18 Mart 2018, Kiev, Ukrayna

KONUŞMA ÖZETLERİ

AİLE SAĞLIĞI MERKEZİNDE ANEMİ YÖNETİMİ

Prof. Dr. Ertan MERT

Aile Sağlığı Merkezleri (ASM); ilk tıbbi temas noktaları olmaları sebebiyle, hastaların birincil tedavilerinin verilmesi ve ileri değerlendirme gerektiren durumların ayırt edilebilmesi açısından sağlık sisteminin merkezinde yer alırlar. Aile hekimleri bu hizmetleri birincil, bütüncül, kapsamlı ve diğer uzmanlık alanları ile koordineli bir şekilde yürütürler. Ancak ASM'lerin sınırlı donanımları nedeniyle, aile hekimlerinin birinci basamak şartlarında neyi tedavi edeceklerini, neyi izleyeceklerini ve neyi sevk edeceklerini ayırt edebilecek düzeyde "birinci basamak yönelimli klinik yönetim" konusunda yetkinleşmeleri önemlidir.

Anemi; dolaşan kırmızı kan hücreleri kitlesinde yaş, cinsiyet, fizyolojik durum gibi parametrelerle belirlenen normal düzeylere göre azalmanın bulunmasıdır. Anemi bir hastalık tanısı değil, bir bulgudur. Aneminin klinik olarak varlığı, kanda hemoglobin (Hb) ya da hemotokrit (Htc) değerlerinin ölçümü ile tespit edilir. Hb değeri; erkeklerde 13 gr/dl'nin, kadınlarda 12 gr/dl'nin, çocuklarda ve gebelerde ise 11 gr/dl'nin altına düştüğünde anemi varlığından söz edilebilir.

Birinci basamakta anemi yönetim süreci; 1) Klinik tanı ve ayrıcı tanı (Nütrisyonel anemilerin birinci basamakta tanı ve tedavisi) 2) Anemilerde ileri değerlendirme gerektiren durumların (kırmızı bayrakların) ayrıştırılması basamaklarından oluşur.

KLİNİK TANI

Öykü: Tanı ve ayırıcı tanı açısından değerli ipuçları verir.

- 1. Genel yakınmalar (Solukluk, sarılık, halsizlik, yorgunluk, kemik-eklem-kas ağrıları)
- 2. Tırnak ve saç problemleri

3. Orofaringeal-dispeptik yakınmalar (Ağız kenarında çatlaklar, dilde yanma, aftlar, diş eti problemleri, pika, iştahsızlık)

4. KVS yakınmalar (Çarpıntı, göğüs ağrısı, dispne)

5. Nöro-psikiyatrik yakınmalar (Baş ağrısı, baş dönmesi, kulak çınlaması, algılamakonsantrasyon,-öğrenme güçlüğü, koordinasyon ve denge bozukluğu, duygu-durum değişiklikleri, halüsinasyonlar)

- 6. Menstruasyon düzensizliği, libido kaybı, empotans
- 7. Büyüme, gelişme geriliği

8. Özgeçmişte; yaş, cinsiyet, gebelik ve emzirme durumu, sistemlerden kayıp yapan patolojiler (özellikle gastrointestinal ve ürogenital sistemler), kronik hastalıklar, kullanılan ilaçlar ve beslenme örüntüsü sorgulanmalıdır.

9. Soygeçmişte; ailede sarılık, splenomegali, splenektomi ve malignensi öyküsü sorgulanmalıdır.

2. Uluslararası Acil Tıp ve Aile Hekimliği Sempozyumu, 15-18 Mart 2018, Kiev, Ukrayna

Fizik Muayene: Tam fizik muayene yapılması önemlidir. Ayrıca aşağıdaki bulguların varlığı klinik tablonun yorumlanması açısından değerlidir.

- 1. Ciltte solukluk, sarılık, kirli soluk/ subikterik renk değişikliği
- 2. Glossit, stomatit, yanak mukoza atrofisi, oral aft
- 3. Kaşık tırnak, tırnaklarda düzleşme
- 4. Hepatomegali, spenomegali, LAP, kitle
- 5. Taşikardi, sistolik üfüm, kalp yetmezliği bulguları
- 6. Kognitif değişiklikler, nöropsikiyatrik bozukluklar

Laboratuvar: Anemilerde tanı ve ayırıcı tanı süreçlerinin en önemli bileşenidir.

MCV (80-100 fl): Mikrositer (Demir eksikliği, Beta-talasemi, kronik hastalık anemisi), Normositer (Hemolitik anemiler, akut kan kaybı, kronik hastalık anemisi, kronik böbrek yetmezliği, lösemiler), Makrositer (B12 eksikliği, Folat eksikliği, kronik karaciğer hastalığı, miyelodisplastik sendrom, alkolizm) anemilerin ayırıcı tanısı ve morfolojik sınıflandırması açısından önemlidir.

MCH (27-34 pikogram): hipokromi ve hiperkromiyi gösterir.

RDW (%11.5-14.5): Yüksekliği anizositoza işaret eder ve özellikle nutrisyonel anemilerin ayrıştırılmasında değerlidir.

MCV/ RBC (mezenter indeks): Demir eksikliği ve talasemi ayrıcı tanısında değerlidir (>13: Demir eksikliğini, <13: Talasemiyi düşündürür)

Ferritin: Demir eksikliği anemisinde düşer, aynı zamanda akut faz reaktanı olması sebebiyle kronik hastalık anemisinde yükselir. Ayırıcı tanıda değerlidir.

TDBK (Total demir bağlama kapasitesi): Demir eksikliği anemisinde yükselir, kronik hastalık anemisinde düşer. Ayırıcı tanıda değerlidir.

İLERİ DEĞERLENDİRME GEREKTİREN DURUMLAR: KIRMIZI BAYRAKLAR

- 1. Hb < 7gr/dl
- 2. Yetişkin erkekte ve postmenapozal kadında demir eksikliği anemisi
- 3. Nötropeni ve trombositopeninin eşlik etmesi
- 4. Sarılık, splenomegali, LDH ([†]), bilüribin ([†]), Rtc ([†])
- 5. Sedimantasyon/CRP ([†]) Altta yatan kronik hastalık laboratuvar bulguları
- 6. Kilo kaybı
- 7. Hepatomegali, splenomegali, LAP, kitle
- 8. Diș eti problemleri
- 9. Sistemik dolaşım yetmezliği (şok) bulguları

KAYNAKLAR

1. Aytekin G, Ecirli Ş. Erişkinlerde Anemilere Genel Yaklaşım. Turkiye Klinikleri J Fam Med-Special Topics 2016;7(3):1-4.

2. Türk Hematoloji Derneği. Eritrosit Hastalıkları ve Hemoglobin Bozuklukları Tanı ve Tedavi Kılavuzu. Sürüm 1. Ankara: Türk Hematoloji Derneği; 2011. p.95.

3. Beutler E, Lichtman MA, Coller BS, et al, eds. Williams' Hematology. 8thed. New York: McGraw-Hill; 2010. p.29-33.

4. Terzi H, Şencan M. Hematolojik Testlerin Laboratuvar Değerlendirilmesi. Turkiye Klinikleri J Fam Med-Special Topics 2016;7(3):29-33.

5. Oski FA, Brugnara C, Nathan DG. A diagnostic approach to the anemic patient. In: Nathan DG, Orkin SH, Ginsburg D, Look AT, eds. Hematology of Infancy and Childhood. 6thed. Philadelphia: W.B. Saunders; 2003. p.409-18.

6. Approach to the anemias. In: Lee Goldman, Schafer AI, eds. Cecil Textbook of Medicine. 25thed. Philadelphia, PA : Elsevier/Saunders; 2015. p.840-7.

AİLE SAĞLIĞI MERKEZİNDE DİYABET YÖNETİMİ

Prof. Dr. Ertan MERT

Aile Sağlığı Merkezleri (ASM); ilk tıbbi temas noktaları olmaları sebebiyle, hastaların birincil tedavilerinin verilmesi ve ileri değerlendirme gerektiren durumların ayırt edilebilmesi açısından sağlık sisteminin merkezinde yer alırlar. Aile hekimleri bu hizmetleri birincil, bütüncül, kapsamlı ve diğer uzmanlık alanları ile koordineli bir şekilde yürütürler. Ancak ASM'lerin sınırlı donanımları nedeniyle, aile hekimlerinin birinci basamak şartlarında neyi tedavi edeceklerini, neyi izleyeceklerini ve neyi sevk edeceklerini ayırt edebilecek düzeyde "birinci basamak yönelimli klinik yönetim" konusunda yetkinleşmeleri önemlidir.

Tip 2 diyabet; insülin direnci zemininde ilerleyici insülin sekresyon defekti ile karakterize metabolik bir hastalıktır. Aynı zamanda ciddi aterosklerotik etkileri nedeniyle önemli bir kardiyovasküler risk faktörüdür. Ortalama yaşam süresinin uzaması, yanlış beslenme, yetersiz fizik aktivite ve obezite nedeniyle tüm dünyada Tip 2 diyabet prevalansında artış izlenmektedir.

Birinci basamakta tip 2 diyabet yönetim süreci; 1) Klinik tanı 2) Tedavi ve 3) İzlem basamaklarından oluşur.

1.KLİNİK TANI

Öykü: Tip 2 diyabetin metabolik ve aterosklerotik etkileri sorgulanmalıdır.

1. Diyabet semptomları (Poliüri, polifaji, polidipsi, noktüri, ağız kuruması, halsizlik, inatçı enfeksiyonlar, kaşıntı, ellerde ve ayaklarda yanma ve/veya his kaybı, bulanık görme)

2. Diyabet risk faktörleri (İleri yaş, aile öyküsü, gestesyonel diyabet, PCOS, antipsikotik kullanımı, abdominal obezite, prediyabet, hipertansiyon, dislipidemi)

3. Kronik hastalık ve ilaç öyküsü, önceki laboratuvar sonuçları

- 4. Yaşam tarzı (Beslenme, fizik aktivite, sigara, alkol, stres)
- 5. Aile öyküsü (Kardiyovasküler hastalık, diyabet ve diğer endokrin hastalık)

Fizik Muayene: Tam fizik muayene yapılması önemlidir.

- 1. Abdominal obezite araştırılmalı (BMI >25kg/m2, bel çevresi (K) > 88cm, (E) > 102 cm)
- 2. Kan basıncı ölçümü (Hipertansiyon > 140/90 mmHg), kardiyovasküler sistem muayenesi
- 3. Karaciğer muayenesi (hepatomegali)
- 4. Cilt muayenesi (akantozis nigrikans)
- 5. Nörolojik muayene, göz dibi muayenesi, ayak muayenesi, periferik nabız kontrolü

Laboratuvar: Prediyabet ve Tip 2 diyabet tanı/ayırıcı tanısı için açlık kan şekeri (AKŞ), şeker yükleme testi (OGTT) ve HbA1c tetkikleri yol göstericidir.

	Tip 2 DM	Prediyabet
AKŞ	≥126 mg/dl	100-125 mg/dl
OGTT (75g glukoz 2. Saat)	\geq 200 mg/dl	140-199 mg/dl
HbA1c	≥%6.5	%5.7-6.4

2.TEDAVİ

Yaşam Tarzı Değişiklikleri (YTD): HbA1c değerlerinde %1-2'lik düşüş sağlar. Yaşam tarzı değişiklikleri; diyet, egzersiz, tütün kullanımının kesilmesi ve alkol tüketiminin sınırlandırılması temeline dayanır. Diyette kalori kısıtlanmalı, düşük glisemik indeksli ve yüksek lifli gıdalar tercih edilmelidir. Ara öğünlerde de protein içerikli gıdalar alınmalıdır. Egzersiz kişinin yaşına ve sağlık durumuna uygun şekilde planlanmalı, komorbiditesi olmayan ve kan şekeri regüle izlenen hastalarda haftada en az 3 gün toplam 150 dakika anaerobik egzersiz önerilmelidir.

Oral antidiyabetikler (OAD): HbA1c değerlerinde %1-2'lik düşüş sağlar. Birinci basamakta özellikle; insülin duyarlılaştırıcılar (Metformin), insülin salgılatıcılar (sülfonilüreler) ve alfa glukozidaz inhibitörleri kullanılmaktadır. Seçilmiş vakalarda inkretin-bazlı ilaçlar ve SGLT2-inhibitörleri de tercih edilebilirler.

İnsülin tedavisi: İlk tanıda HbA1c > %10, üçer aylık kontrollerde HbA1c > %8.5 ise insülin tedavisi geciktirilmemelidir.

HbA1c düzeyilerine göre tedavi yaklaşımı aşağıdaki şekilde özetlenebilir:

İlk tanı: <%8.5: YTD + Metformin

%8.5-10: YTD + Metformin + 2.OAD

 \geq %10: İnsülin endikasyonu

3 ay sonra: %7-7.5: YTD + İlaç uyumunu değerlendir

%7.5-8.5: YTD + Metformin + 2.OAD (doz ayarla)

 \geq %8.5: İnsülin endikasyonu

3.İZLEM

İzlemlerde hastanın metabolik dengesi ve tedaviye uyumu değerlendirilmelidir. Ayrıca, mikrovasküler (retinopati, nefropati, nöropati) ve makrovasküler (ateroskleroz) komplikasyonlar ile enfeksiyonların (diyabetik ayak, üriner enfeksiyon gibi) ve diğer komorbit patolojilerin varlığı da araştırılmalıdır. Periyodik izlemlerde yapılması gerekenler aşağıda belirtilmiştir.

Her vizitte: AKŞ, tam idrar tetkiki, kan basıncı ölçümü

3-6 ayda: HbA1c

Yıllık: Elektrokardiyografi, lipid profili, vit B12 (metformin kullananlarda), kreatinin, mikroalbüminüri (spot idrarda albümin/kreatinin, e-GFR)

KAYNAKLAR

1. Türkiye Endokrinoloji ve Metabolizma Derneği. Diabetes Mellitus ve Komplikasyonlarının Tanı, Tedavi ve İzlem Kılavuzu-2017. 9. Baskı. Ankara: Miki Matbaacılık; 2017. p.1-230.

2. The ADVANCE Collaborative Group. Intensive blood glucose control and vascular outcomes in patients with type 2 diabetes. New Engl J Med 2008;358:2560-72.

3. Diabetes UK Nutrition Working Group Members: Evidence-based nutritional guidelines for the prevention and management of diabetes. May 2011. Digital Media.

4. American Diabetes Association. Lifestyle management. Diabetes Care 2017;40(Suppl. 1):S33-S43.

5. Sigal RJ, Kenny GP, Boulé NG, et al. Effects of aerobic exercise training, resistance exercise, or both on glycemic control in type 2 diabetes: a randomized trial. Ann Intern Med 2007;147:357-69.

6. Rodbard HW, Jellinger PS, Davidson JA, Einhorn D, et al. Statement by American Association of Clinical Endocrinologists/ American College of Endocrinology Consensus Panel on Type 2 Diabetes Mellitus: An algorithm for glycemic control. Endocr Pract 2009;15:540-59.

7. National Institute for Health and Clinical Excellence (NICE). Type 2 diabetes: the management of type 2 diabetes. 2008. (www.nice. org.uk)