

GASTROİNTESTİNAL SİSTEM KANAMALARINDA GÜNCEL UYGULAMALAR

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Gastrointestinal sistem (GİS) kanamaları:

- GİS kanamalar hayatı tehdit edebilen acil durumlardır.
- Kanama odağının, Treitz ligamentinin üstünde ya da altında olmasına göre olarak ikiye ayrılırlar.
 - Üst GİS kanamalar
 - Alt GİS kanamalar
- Bu ayrım her iki bölge kanamasının da; klinik açıdan farklı uygulamalar gerektirmesinden dolayı önemlidir.

Üst GİS kanamalar:

- Üst GİS kanamalar, alt GİS kanamalardan dört kat daha siktir.
- Üst GİS Kanamalara baėlı total mortailte oranı % 6-10'dur.
- Nonvariköz ya da variköz olabilir.

- **Peptik ülser**
 - **Gastrik ülser**
 - **Duodenal ülser**
- **Mallory-Weiss yırtıkları**
- **Erozif gastrit**
- **Dieulafoy lesion**
- **Gastrik kanser**
- **Ülsere gastrik leiomyom**
- **Aortoenterik fistül**
- **Gastrik antral vasküler ektazi**
- **Cushing ülseri**
- **Anjiyodisplazi**
- **Özefagus varis kanamaları**

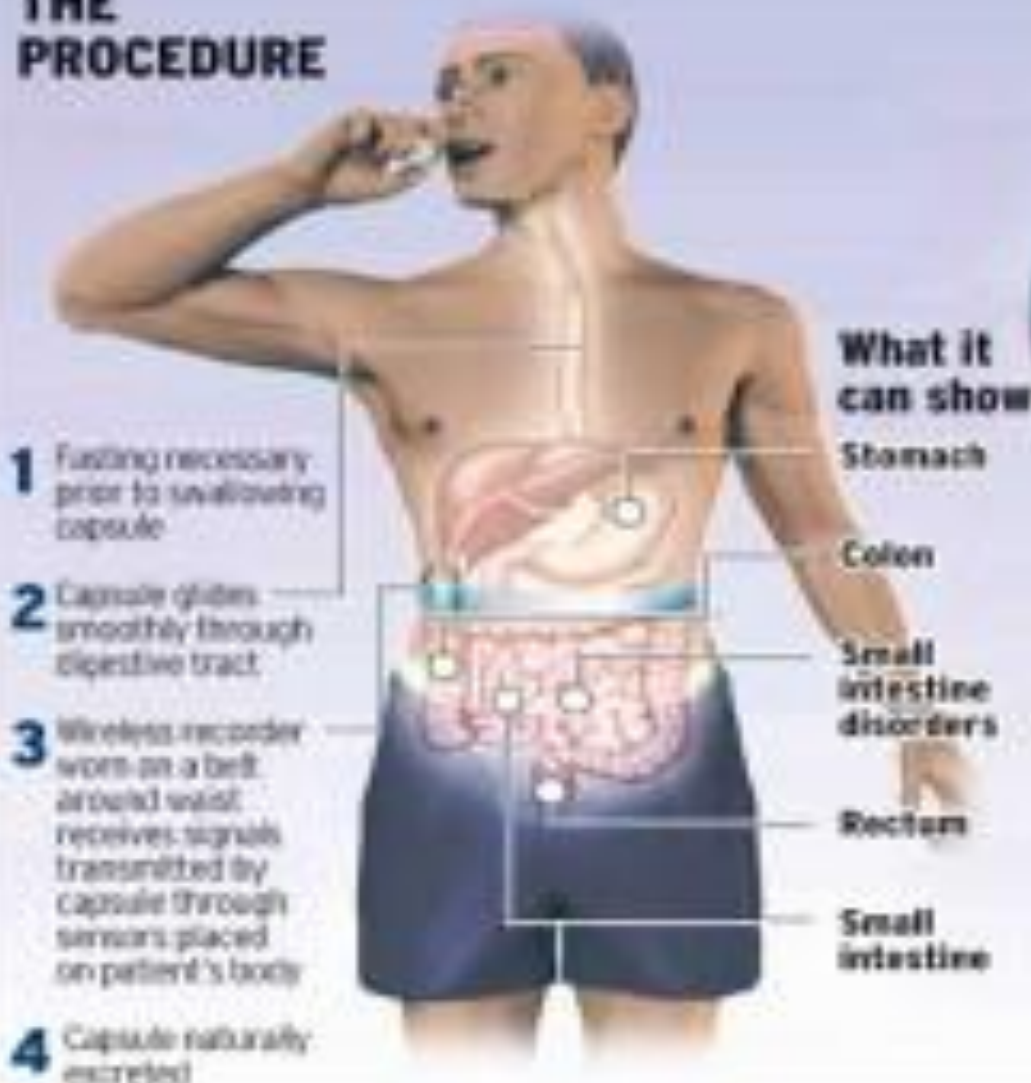




Capsule endoscopy

A capsule fitted with a disposable mini video camera can examine parts of the small intestine that standard scopes can't reach for diagnosing unexplained bleeding or other abnormalities. The video data is transmitted and stored in a recorder worn on a belt, and is later downloaded to a computer that the doctor can study.

THE PROCEDURE



THE CAPSULE



Promise and potential of video capsule endoscopy in the emergency department

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Abstract

Video capsule endoscopy (VCE) represents a novel strategy to perform rapid diagnosis of gastrointestinal tract bleeding, portal hypertension, noncardiac chest pain, and other disorders. **There are limited numbers of US emergency departments** (EDs) that have used VCE on trial and protocol-based patient studies, but the results are encouraging. Given the expanding role of advanced diagnostic and point-of-care testing in the US EDs, **VCE has great potential for future evaluation of ED gastrointestinal complaints.**

[Endoscopy](#). 2013;45(1):12-9.

Capsule endoscopy in acute upper gastrointestinal hemorrhage: a prospective cohort study.

[Gralnek IM](#)¹, [Ching JY](#), [Maza I](#), [Wu JC](#), [Rainer TH](#), [Israelit S](#), [Klein A](#), [Chan FK](#), [Ephrath H](#), [Eliakim R](#), [Peled R](#), [Sung JJ](#).

Abstract

PATIENTS AND METHODS:

We evaluated adults with acute upper gastrointestinal hemorrhage presenting to the emergency departments of two academic centers. Patients ingested a wireless video capsule, which was followed immediately by a nasogastric tube aspiration and later by esophagogastroduodenoscopy (EGD). We compared capsule endoscopy with nasogastric tube aspiration for determination of the presence of blood, and with EGD for discrimination of the source of bleeding, identification of peptic/inflammatory lesions, safety, and patient satisfaction.

RESULTS:

The study enrolled 49 patients (32 men, 17 women; mean age 58.3 ± 19 years), but three patients did not complete the capsule endoscopy and five were intolerant of the nasogastric tube. **Blood was detected in the upper gastrointestinal tract significantly more often by capsule endoscopy (15/18 [83.3%])** than by nasogastric tube aspiration (6/18 [33.3%]; $P=0.035$). There was no significant difference in the identification of peptic/inflammatory lesions between capsule endoscopy (27/40 [67.5%]) and EGD (35/40 [87.5%]; $P=0.10$, OR 0.39 95%CI 0.11-1.15). Capsule endoscopy reached the duodenum in 45/46 patients (98%). One patient (2.2%) had self-limited shortness of breath and one (2.2%) had coughing on capsule ingestion.

CONCLUSIONS:

In an emergency department setting, capsule endoscopy appears feasible and safe in people presenting with acute upper gastrointestinal hemorrhage. Capsule endoscopy identifies gross blood in the upper gastrointestinal tract, including the duodenum, significantly more often than nasogastric tube aspiration and identifies inflammatory lesions, as well as EGD. Capsule endoscopy may facilitate patient triage and earlier endoscopy, but should not be considered a substitute for EGD.

[Acad Emerg Med.](#) 2013 Jul;20(7):711-5.

Emergency physicians accurately interpret video capsule endoscopy findings in suspected upper gastrointestinal hemorrhage: a video survey.

[Meltzer AC](#)¹, [Pinchbeck C](#), [Burnett S](#), [Buhumaid R](#), [Shah P](#), [Ding R](#), [Fleischer DE](#), [Gralnek IM](#).

OBJECTIVES:

The study objective was to determine if EPs can detect upper GI bleeding on capsule endoscopy after a brief training session.

METHODS:

A survey study was designed to demonstrate video examples of capsule endoscopy to EPs and determine if they could detect upper GI bleeding after a brief training session. All videos were generated from a prior ED-based study on patients with suspected acute upper GI hemorrhage. **The training session consisted of less than 10 minutes of background information and capsule endoscopy video examples.** EPs were recruited at the American College of Emergency Physicians Scientific Assembly in Denver, Colorado, from October 8, 2012, to October 10, 2012. Inclusion criteria included being an ED resident or attending physician and the exclusion criteria included any formal endoscopy training. The authors analyzed the agreement between the EPs and expert adjudicated capsule endoscopy readings for each capsule endoscopy video. For the outcome categories of blood (fresh or coffee grounds type) or no blood detected, the sensitivity and specificity were calculated.

RESULTS:

A total of 126 EPs were enrolled. Compared to expert gastroenterology-adjudicated interpretation, **the sensitivity to detect blood was 0.94 (95% confidence interval [CI] = 0.91 to 0.96) and specificity was 0.87 (95% CI = 0.80 to 0.92).**

CONCLUSIONS:

After brief training, EPs can accurately interpret video capsule endoscopy findings of presence of gross blood or no blood with high sensitivity and specificity.

Video capsule endoscopy in the emergency department: a prospective study of acute upper gastrointestinal hemorrhage.

[Meltzer AC](#), [Ali MA](#), [Kresiberg RB](#), [Patel G](#), [Smith JP](#), [Pines JM](#), [Fleischer DE](#).

Abstract

STUDY OBJECTIVE:

Video capsule endoscopy has been used to diagnose gastrointestinal hemorrhage and other small bowel diseases but has not been tested in an emergency department (ED) setting. The objectives in this pilot study are to demonstrate the ability of emergency physicians to detect blood in the upper gastrointestinal tract with capsule endoscopy after a short training period, measure ED patient acceptance of capsule endoscopy, and estimate the test characteristics of capsule endoscopy to detect acute upper gastrointestinal hemorrhage.

METHODS:

During a 6-month period at a single academic hospital, eligible patients underwent video capsule endoscopy (Pillcam Eso2; Given Imaging) in the ED. Video images were reviewed by 4 blinded physicians (2 emergency physicians with brief training in capsule endoscopy interpretation and 2 gastroenterologists with capsule endoscopy experience).

RESULTS:

A total of 25 subjects with acute upper gastrointestinal hemorrhage were enrolled. **There was excellent agreement** between gastroenterologists and emergency physicians for the presence of fresh or coffee-ground blood (0.96 overall agreement; $\kappa=0.90$). Capsule endoscopy was well tolerated by 96% of patients and showed an **88% sensitivity** (95% confidence interval 65% to 100%) and **64% specificity** (95% confidence interval 35% to 92%) for the detection of fresh blood. Capsule endoscopy missed 1 bleeding lesion located in the postpyloric region, which was not imaged because of expired battery life.

CONCLUSION:

Video capsule endoscopy is a sensitive way to identify upper gastrointestinal hemorrhage in the ED. **It is well tolerated and there is excellent agreement in interpretation between gastroenterologists and emergency physicians.**

The cost-effectiveness analysis of video capsule endoscopy compared to other strategies to manage acute upper gastrointestinal hemorrhage in the ED.

[Meltzer AC](#)¹, [Ward MJ](#)², [Gralnek IM](#)³, [Pines JM](#)⁴

Abstract

STUDY OBJECTIVE:

Acute upper gastrointestinal (GI) hemorrhage is a common presentation in hospital-based emergency departments (EDs). A novel diagnostic approach is to use video capsule endoscopy to directly visualize the upper GI tract and identify bleeding. Our objective was to evaluate and compare the relative costs and benefits of video capsule endoscopy compared to other strategies in low- to moderate-risk ED patients with acute upper GI hemorrhage.

METHODS:

We constructed a model using standard decision analysis software to examine the cost-effectiveness of 4 available strategies for a base-case patient who presents to the ED with either mild- or moderate-risk scenarios (by Glasgow-Blatchford Score) for requiring invasive hemostatic intervention (ie, endoscopic, surgical, etc) The 4 available diagnostic strategies were (1) direct imaging with video capsule endoscopy performed in the ED; (2) risk stratification using the Glasgow-Blatchford score; (3) nasogastric tube placement; and, finally, (4) an admit-all strategy.

RESULTS:

In the low-risk scenario, video capsule endoscopy was the preferred strategy (cost \$5691, 14.69 quality-adjusted life years [QALYs]) and was more cost-effective than the remaining strategies including nasogastric tube strategy (cost \$8159, 14.69 QALYs), risk stratification strategy (cost \$10,695, 14.69 QALYs), and admit-all strategy (cost \$22,766, 14.68 QALYs). In the moderate-risk scenario, video capsule endoscopy continued to be the preferred strategy (cost \$9190, 14.56 QALYs) compared to nasogastric tube (cost \$9487, 14.58 QALYs, incremental cost-effectiveness ratio \$15,891) and more cost effective than admit-all strategy (cost, \$22,584, 14.54 QALYs.)

CONCLUSION:

Video capsule endoscopy may be cost-effective for low- and moderate-risk patients presenting to the ED with acute upper GI hemorrhage.

Alt GİS kanamalar:

- İnsidansı üst GİS kanamalara göre çok daha azdır.
- Yaş arttıkça insidansı artar.
- Erkeklerde bayanlara oranla daha sıktır.
- Divertikülozis (%30-50) ve anjiyodisplazi(%20-30) en sık nedenlerdir.
- Hemoroidler 50 yaş altında en sık nedendir. Ancak kanama çok azdır.

- Kolonoskopi
 - Kolonoskopi kanamaların %80-90'ınını belirler.
- Nükleer tıp görüntülemeleri
 - Nükleer sintigrafi 0,1-0,5 ml/dk olan küçük kanamaların belirlenmesinde etkilidir.
- Anjiyografi
 - Masif devam eden alt GİS kanamalarında tercih edilir.

Colon Capsule Endoscopy

[Spada C](#)¹, [Hassan C](#)², [Costamagna G](#)².

Abstract

Colon capsule endoscopy (CCE) is a minimally invasive technique specifically designed to explore the colon without sedation and air insufflation. CCE may overcome some of the limitations of colonoscopy. Second-generation CCE (CCE-2) was proved accurate in detecting colonic neoplastic lesions when used in average-risk individuals. The evidence to date supports the use of CCE-2 in cases of colonoscopy failure, in patients unwilling to undergo colonoscopy, and when colonoscopy is contraindicated. Other potential applications, such as colorectal cancer screening or diagnostic surveillance of inflammatory bowel disease, require clarification.

[World J Gastroenterol.](#) 2014 Dec 7;20(45):16948-55.

Colon capsule endoscopy: What we know and what we would like to know

[Spada C](#)¹, [Barbaro F](#)¹, [Andrisani G](#)¹, [Minelli Grazioli L](#)¹, [Hassan C](#)¹, [Costamagna I](#)¹, [Campanale M](#)¹, [Costamagna G](#)¹.

Abstract

Colonoscopy is usually perceived as an invasive and potentially painful procedure, being also affected by a small, but definite, risk of major complications (cardiopulmonary complications, perforation, hemorrhage) and even mortality. To improve both acceptability and safety, PillCam ColonCapsule Endoscopy (CCE) (Given Imaging Ltd, Yoqneam, Israel) has been developed. CCE represents a non-invasive technique that is able to explore the colon without sedation and air insufflation. The Second Generation of Colon Capsule Endoscopy (PillCam Colon 2) (CCE-2) was proven to be an accurate tool to detect colonic neoplastic lesions when used in average risk individuals. To date, the evidence supports the use of CCE-2 in case of colonoscopy failure, in patients unwilling to perform colonoscopy and when colonoscopy is contraindicated. Other potential applications, such as colorectal cancer screening or diagnostic surveillance of inflammatory bowel disease need to be clarified. In this paper, the current "state of the art", potential application of CCE and future needs are evaluated.

Second-generation colon capsule endoscopy compared with colonoscopy.

[Spada C](#)¹, [Hassan C](#), [Munoz-Navas M](#), [Neuhaus H](#), [Deviere J](#), [Fockens P](#), [Coron E](#), [Gay G](#), [Toth E](#), [Riccioni ME](#), [Carretero C](#), [Charton JP](#), [Van Gossum A](#), [Wientjes CA](#), [Sacher-Huvelin S](#), [Delvaux M](#), [Nemeth A](#), [Petruzziello L](#), [de Frias CP](#), [Mayershofer R](#), [Amininejad L](#), [Dekker E](#), [Galmiche JP](#), [Frederic M](#), [Johansson GW](#), [Cesaro P](#), [Costamagna G](#).

BACKGROUND:

Colon capsule endoscopy (CCE) represents a noninvasive technology that allows visualization of the colon without requiring sedation and air insufflation. A second-generation colon capsule endoscopy system (PillCam Colon 2) (CCE-2) was developed to increase sensitivity for colorectal polyp detection compared with the first-generation system.

OBJECTIVE:

To assess the feasibility, accuracy, and safety of CCE-2 in a head-to-head comparison with colonoscopy.

PATIENTS:

This study involved 117 patients (mean age 60 years). Data from 109 patients were analyzed.

INTERVENTION:

CCE-2 was prospectively compared with conventional colonoscopy as the criterion standard for the detection of colorectal polyps that are ≥ 6 mm or masses in a cohort of patients at average or increased risk of colorectal neoplasia. Colonoscopy was independently performed within 10 hours after capsule ingestion or on the next day.

MAIN OUTCOME MEASUREMENTS:

CCE-2 sensitivity and specificity for detecting patients with polyps ≥ 6 mm and ≥ 10 mm were assessed. Capsule-positive but colonoscopy-negative cases were counted as false positive. Capsule excretion rate, level of bowel preparation, and rate of adverse events also were assessed.

RESULTS:

Per-patient CCE-2 sensitivity for polyps ≥ 6 mm and ≥ 10 mm was 84% and 88%, with specificities of 64% and 95%, respectively. All 3 invasive carcinomas were detected by CCE-2. The capsule excretion rate was 88% within 10 hours. Overall colon cleanliness for CCE-2 was adequate in 81% of patients.

CONCLUSION:

In this European, multicenter study, CCE-2 appeared to have a high sensitivity for the detection of clinically relevant polypoid lesions, and it might be considered an adequate tool for colorectal imaging.

A close-up photograph of a person's hands holding a white rectangular card. The card is centered in the frame and has the word "TEŞEKKÜRLER" printed on it in a bold, red, sans-serif font. The hands are positioned at the top and bottom edges of the card, with fingers visible. The background is a blurred, warm-toned surface, possibly a wooden table or floor, which provides a soft contrast to the white card.

TEŞEKKÜRLER