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- 'docendo ac discendo' - 'by teaching and learning'

In this issue:

Executive Board

IJOCS
DOCENDO AC DISCENDO

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Acknowledgements

I would like to take this opportunity to show appreciation to all those involved with the production of the International Journal of Clinical Skills. Many thanks to all members of the Editorial and Executive Boards. A special thanks to Michael Todd, of RCS Printers, and Dr Catherine Handy, for their continuing support.

The International Journal of Clinical Skills looks forward to contributing positively towards the training of all members of the healthcare profession.

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Foreword

Surviving the Global Economic Crisis in the World of Clinical Skills

After a tremendously successful beginning, the International Journal of Clinical Skills (IJOCS) has had the pleasure of bringing together the international clinical skills community. Throughout 2008 the extremely positive response from both students and teachers has demonstrated the need for this quality peer reviewed Journal, whose remit is not only to publish research, but also to provide a centre point in the world of clinical skills.

The variety of papers published in IJOCS to date is in itself unique, many of which have been changing the way all healthcare professionals practice within the clinical arena. Only time will tell whether such change does ultimately lead to improved patient outcomes and quality healthcare; however, the remarkable feedback received from the many doctors, nurses and other professionals who read the IJOCS, encourages us to continue developing this exceptional resource.

As 2009 begins, countries all over the globe face what may be the worst economic outlook since the 1950's, hence it is prudent not only to be conscious of our spending habits, but also to consider how this may impact the teaching and learning of clinical skills – a vital part of healthcare. Many healthcare institutions have had to significantly reduce their educational budgets, which no doubt has a detrimental impact on the training of all professionals. Moreover, it is important not to lose sight of the fact that quality healthcare delivery is required to maintain healthy nations, which, in turn, can reduce financial burden.

Following the global financial crisis, the in-house publishing company for the IJOCS (SkillsClinic Ltd) has decided to launch the website www.clinitube.com in 2009. This will be a free website where professionals will not only be able to download clinical skills guidelines (the aim of the originally proposed Clinical Skills Lab – CSL), but also upload their own information and files onto clinitube.com so that other professionals can share these materials for free. At a time when resources are limited, clinitube.com will build an online community for the sharing of much needed resources.

In addition to our colleagues at clinitube.com, the IJOCS will continue to publish many articles which present novel research and offer readers comprehensive guidance on a variety of clinical skills subject areas, including effective teaching methodology. We hope our readers take advantage of this knowledge by disseminating the information, putting it into practice and benefiting from the numerous incentives.

We reflect with much enthusiasm, for what the IJOCS has achieved so far and look forward to what has begun.

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Examination of the gastrointestinal system

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Abstract

This article lays out a thorough routine for examining the gastrointestinal system that is appropriate both for day-to-day clinical practice and for sitting undergraduate Objective Structured Clinical Exams (OSCEs). The emphasis is on the steps involved in examining the gastrointestinal system, rather than on specific signs. For these, refer to other cited references [1-5]. This article is consistent with the 'Principles of Clinical Examination' [6].

Introduction

Patients complaining of gastrointestinal (GI) symptoms account for a significant proportion of primary care consultations. In about 75% of cases, no organic pathology can be found to explain these symptoms. Clinical examination is an important tool in identifying organic pathology, and contributes to reassuring patients without it.

For the sake of simplicity, this paper refers to the patient as being male, but the examination is identical for a patient of the female gender.

Before starting

After washing your hands, introduce yourself to the patient, explain the examination, and ask for his consent to carry it out. Also ask if he is in any pain, and adapt your routine accordingly.

Ask the patient to expose himself from nipple to knee or, as in most routine clinical encounters, simply from nipple to groin. Ask him to lie flat, with the head supported by one pillow only. Ensure his comfort and dignity at all times.

General inspection

The aim of the general inspection is to identify clues about the patient's physical condition and the underlying diagnosis. From the end of the couch, observe the patient's general appearance (age, state of health, nutritional status, and any other obvious signs). Next observe the surroundings, looking in particular for the presence of a nasogastric tube, intravenous infusion, urinary catheter, drain, or stoma bag. Ask the patient to lift his head up and to cough. This can make hernias more visible and, if the patient has difficulty in complying with your instructions, may suggest peritonism.

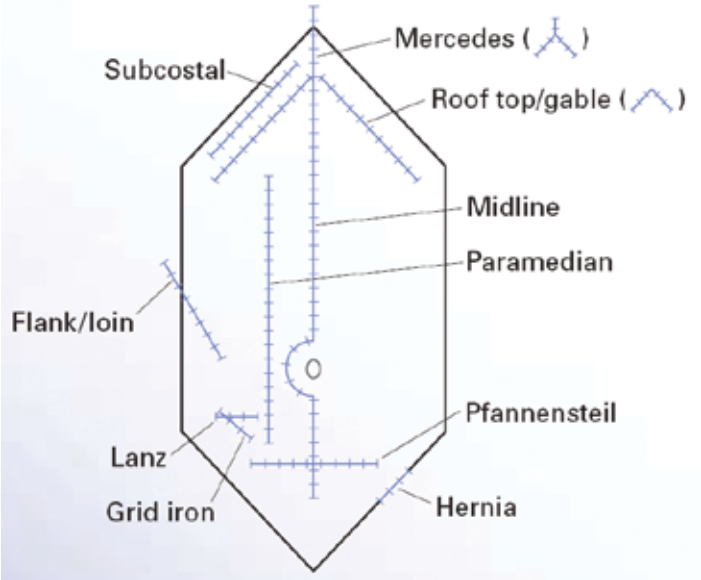
Inspection and examination of the hands

Take both hands, noting their temperature and looking for clubbing, palmar erythema, Dupuytren's contracture and nail signs (leukonychia and koilonychia). Test for asterixis or 'liver flap' by showing the patient how to extend both arms with the wrists dorsiflexed and the palms facing forwards. Ask him to hold this posture for at least 10 seconds. Next, feel the radial pulse for at least 15 seconds, and then inspect the arms for bruising, excoriation, injection marks, and tattoos.

Inspection and examination of the head, neck, and upper body
Ask the patient to look up and inspect the sclera for jaundice. Gently retract the eyelid and inspect the conjunctiva for anaemia. Ask the patient to open his mouth, and note any odour on the breath. Inspect the mouth, looking for ulcers, angular stomatitis, atrophic glossitis, or any furring of the tongue. If you suspect alcoholism or an eating disorder, feel for enlargement of the parotid glands. Next palpate the neck for lymphadenopathy, paying particular attention to the left supraclavicular fossa.

Inspection of the abdomen
Inspect the abdomen for its contours and any obvious distension, localised masses, skin changes, and scars (Figure 1). So as not to miss any scars, make a special effort to reach over and inspect the flanks.

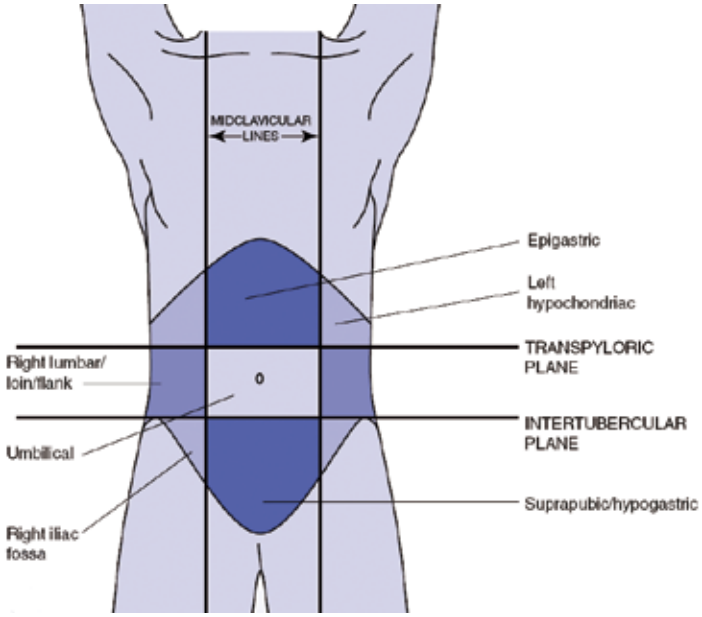
Figure 1: Abdominal scars



Palpation of the abdomen
Before palpating the abdomen, ask the patient to identify any area of pain or tenderness.

Sit or kneel beside the patient and use the palmar surface of your fingers to **lightly** palpate in all nine regions of the abdomen (Figure 2), beginning with the region furthest away from any pain or tenderness. By flexing and extending your metacarpophalangeal joints, palpate for tenderness, guarding, and rigidity. Keep looking at the patient's face for any signs of discomfort.

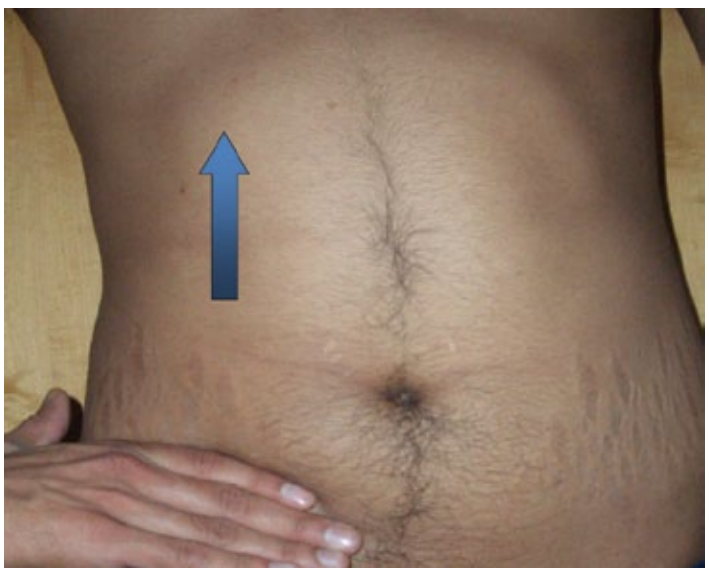
Figure 2: Regions of the abdomen



Repeat the procedure, this time palpating more deeply so as to locate and describe any masses [7].

Palpation of the organs
Liver: ask the patient to breathe in and out and, starting in the right iliac fossa, feel for the inferior liver edge using the radial aspect of your index finger (Figure 3). Each time the patient inspires, move your hand closer to the right costal margin and press your fingers firmly into the abdominal wall. The inferior liver edge may be felt as the liver descends upon inspiration, and should be described in terms of regularity, nodularity and tenderness.

Figure 3: Palpation of the liver



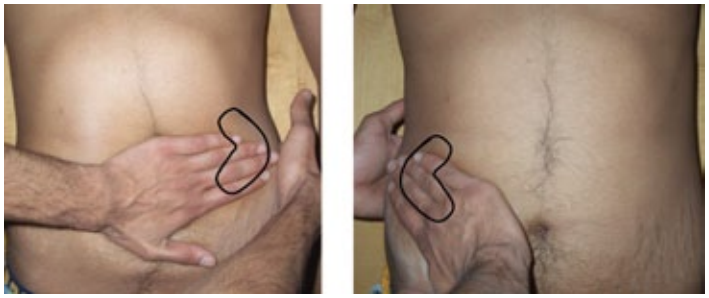
Gallbladder: palpate for tenderness over the tip of the right ninth rib.

Spleen: palpate for the spleen as for the liver; once again starting in the right iliac fossa (Figure 4), press the tips of your fingers firmly against the abdominal wall so that your hand is pointing up and moving towards the left hypochondrium. If the spleen is enlarged, the splenic notch may be 'caught' as the spleen descends upon inspiration.

Figure 4: Palpation of the spleen

Kidneys: position the patient close to the edge of the bed and ballot each kidney using the technique of deep bimanual palpation (Figure 5). Place one hand flat over the anterior aspect of the flank (right hand for **left kidney,** and left hand for **right kidney**), and press down whilst using the other hand (placed at the posterior aspect of the flank) to push the kidney up from below.

Figure 5: Palpation of the kidneys



Aorta: palpate the descending aorta with the tips of your fingers on either side of the midline, just above the umbilicus (Figure 6). Pressing your fingers firmly into the abdominal wall, assess whether the aorta is pulsatile and whether it is expansile i.e. whether it causes the fingers of your right and left hands to move apart.

Figure 6: Palpation of the abdominal aorta

Percussion

Liver: percuss out the entire craniocaudal extent of the liver. In the midclavicular line, start above the right fifth intercostal space and progress downwards. The normal liver represents an area of dullness which typically extends from the fifth intercostal space to the edge of the costal margin. Beyond this point, the abdomen should be resonant to percussion.

Spleen: as for the liver, percuss the spleen to determine its size.

Bladder: percuss the suprapubic area for the undue dullness of bladder distension.

'Shifting dullness': this sign can be used to confirm the presence of ascites. Percuss down the right side of the abdomen. If an area of dullness is detected, keep two fingers on the area and ask the patient to roll over onto his left. After about 30 seconds, re-percuss the area which should now sound resonant. The change in the percussion note reflects the redistribution of ascitic fluid under the effect of gravity.

Auscultation

Auscultate over the following areas:

- The mid-abdomen for bowel sounds. Listen for 30 seconds before concluding that they are normal, hyperactive, hypoactive, or absent.
- The abdominal aorta for aortic bruits suggestive of arteriosclerosis or an aneurysm.
- 2.5cm above and lateral to the umbilicus for renal artery bruits suggestive of renal artery stenosis.

Completing the examination

Cover up the patient and thank him. Enquire about and address any concerns that he may have.

In an exam situation, turn to face the examiner and tell them what needs to be done to complete the examination. This should include:

- Examination of hernial orifices.
- Examination of the external genitalia.
- Digital rectal examination.
- Inspection of the patient's observation chart: pulse rate, blood pressure, temperature, respiratory rate, and oxygen saturation.
- Testing of urine: urinalysis and, if appropriate, pregnancy test and urine drug screen.
- Ordering of key investigations, as appropriate, for example: blood tests or an ultrasound scan.

Finally, summarise your findings and offer a differential diagnosis. The abdominal conditions most likely to appear in an Objective Structured Clinical Examination (OSCE) setting include chronic liver disease, splenomegaly, polycystic kidneys, renal transplant, scars and hernias.

Acknowledgements

Permissions: Figures 1 and 2 are taken with permission, directly from 'Clinical Skills for OSCEs' by Neel Burton (Second Edition).

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The Clinical Skills Lab database will comprise information on over 200 clinical skills, broadly separated into:

- ➔ History taking skills
- ➔ Communication skills
- ➔ Clinical examination/interpretation skills
- ➔ Practical skills

Not only will this valuable resource provide material to students as a learning tool and revision aid, for example, OSCEs, it will also offer educational materials for teachers from all disciplines, allowing some standardisation of practice. The Clinical Skills community will also be encouraged to contribute, making this database interactive.

CSL is a free not for profit database. Visit **www.ijocs.org** for access