

A METHOD TO AID THE DETECTION OF SLIGHT SPLENOMEGALY

Comparison with other recommended methods

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The great majority of textbooks on physical diagnosis describe various methods for the detection of splenomegaly since the finding of an enlarged spleen may be crucially important in helping to arrive at a clinical diagnosis. However, minor degrees of enlargement may be difficult to detect, and different manoeuvres have been described from time to time in order to facilitate palpation. It was felt worthwhile to bring the manoeuvre to be described to the notice of medical colleagues as it does not appear to have been described before, and because of its simplicity and effectiveness in obtaining abdominal muscle relaxation and thereby facilitating palpation of the spleen. One was impressed on looking up the various texts by the contrasting methods used, and some comments will be made on the different views put forward.

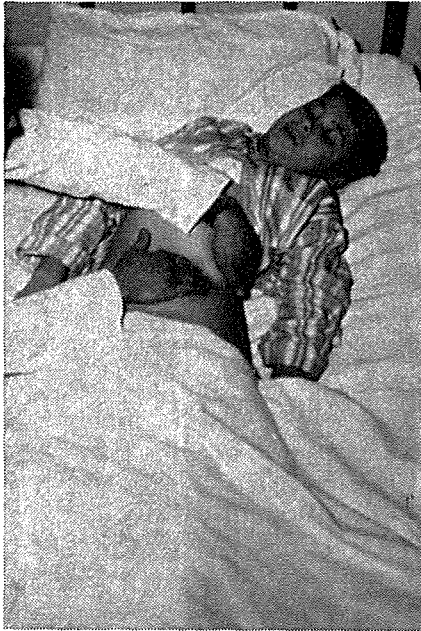
The manoeuvre was first tried out while examining a number of typhoid patients about three years ago. It was found particularly useful in tense patients who could not relax their abdominal muscles

properly and was most efficacious in children or in young patients with well developed musculature. The whole purpose of the manoeuvre is to reduce the stretch tension of the left abdominal muscles.

The usual precautions are taken to make sure that the patient is as comfortable as possible and that the examiner's hands are warm. The patient should be lying in the supine position either flat or with a pillow. He is then made to flex his trunk laterally to the left, while keeping flat on the bed. This manoeuvre brings the left lower ribs closer to the left iliac crest than usual, thereby reducing the stretch tension of the left abdominal muscles and relaxing the abdomen. The examiner is then able to proceed with bimanual examination of the spleen using one or more of the usual methods advocated.

One has only to compare, on a tense patient, palpation in the standard straight position and after this manoeuvre to appreciate the greater ease of palpation. The left lateral flexion position can, of course, be adapted for palpation of other abdo-

minal masses or organs by asking the patient to flex his spine laterally to the right.



Perusal of the various texts on the subject show that most authors rightly stress the need for proper relaxation by the patient and that they imply that improper relaxation is the commonest cause of failure to palpate minor degrees of enlargement. The methods advocated by them to help produce adequate relaxation are various and it was felt that a brief review would show the striking differences of opinion expressed .

The measures may be discussed under the following headings:

- A) Psychological: i) Reassurance; ii) Mental attitude of patient.
- B) Comfortable physical environment.
- C) Comfortable positioning of patient.
- D) Breathing measures.
- E) Importance of examiner's hands.
- F) Special manoeuvres.

Psychological

Some authors such as Prior and Silberstein (1963) mention that the patient should be assured that "no sudden manipulation or painful procedure will be carried out." These authors also feel that enhanced relaxation will result by distract-

ing the patient's attention through the appropriate remark or gesture. The need to gain the patient's confidence is also stated in Martini's book (1938). Macleod (1964) in his excellent textbook also describes in the section on general examination of the abdomen the need to remind the patient "from time to time to relax". If the patient finds it difficult to comply Macleod suggests instructions to the patient such as "to lie heavily on the bed".

Comfortable physical environment

The paramount importance of this is mentioned by most authors, with special reference to a warm room (DeGowin, 1965; Macleod, 1964; Hochstein and Rubin, 1964). Some authors advocate more extreme and enthusiastic measures. Thus in Martini's book, a warm bath is mentioned to ensure adequate relaxation. Pullen (1950) suggests the use of warm packs on the abdomen for ten to fifteen minutes or else recommends placing the patient (especially if a child), in a warm bath for the same period of time. Kampmeier (1964) wins the prize as far as enthusiasm in this respect goes. He recommends twenty minutes in a hot tub and palpation while the patient is reclining in the bath! It is perhaps reasonable to feel that such measures are not of much practical value in daily clinical practice as one cannot easily envisage a queue of patients waiting for their hot bath during a busy wardround, in hectic outpatients sessions or in an overcrowded general practitioner's clinic.

Comfortable positioning of patient

Most authors differ as to their recommended practice in examining the abdomen. The patient is in the supine position "with a small pillow supporting the head" in Hochstein and Rubin's description. These authors also state that a pillow under the knees is helpful in relaxing the abdominal muscles. Macleod, giving a bit more latitude, has his patient comfortably supine on one or two pillows and is one of the very few authors who mention that an extra pillow or two may be necessary

to prop up a severe kyphosis. Major and Delp (1965) disagree and state that the patient should usually lie perfectly flat without a pillow. Pullen (1950) is not particular as to whether pillows should be used or not. He feels that examination should begin with the patient lying flat and symmetrically on the bed. Later on it is stated that the patient may be more comfortable "if one or two pillows are placed under the head, chest or sacrum". This author also comments that the patient may be more comfortable if the knees are placed on a pillow and that patients with kyphosis need more elevation of the head and shoulders for relaxation.

Breathing measures

It is amusing to find that there was disagreement among some authorities as to the method in which the patient should carry out the simple physical act of breathing. Thus Pullen (1950) stresses breathing through the open mouth. Pappworth (1960) goes further and insists on a "wide open mouth". Vakil and Golwalla (1961) on the other hand would prefer their patients breathing "quietly through the nose". It is reassuring to note that both they and Pappworth suggest pressure over the patient's sternum to encourage abdominal breathing and thus to ensure relaxation.

Examiner's hands

There is general agreement about the importance of warmth, gentleness and proper palpation with the flat of the hands and with the finger pads. As Prior and Silberstein (1963) put it "nothing will increase the tension of the abdominal muscles more rapidly than a pair of iccold hands" — a fact that too many students and doctors tend to forget.

Special manoeuvres

One or two authors seem to have no boundaries to their enthusiasm in trying to obtain ideal abdominal relaxation. Pullen (1950) who is the same authority who advocated hot abdominal packs or warm baths to the patient states that occa-

sionally "a sniff or two of a gaseous anaesthetic must be given to a hypersensitive or nervous patient if a distinction cannot be made between voluntary and involuntary rigidity". Most doctors, (and patients), are fortunate in never requiring such extreme measures in a clinical lifetime. Kampmeier (1964) also mentions that anaesthesia may be required on rare occasions.

Enough has been said on the various teachings about the best way to ensure adequate relaxation before or during palpation for an enlarged spleen. It may be of interest to comment now briefly on the various methods of examining for the spleen. As is to be expected, almost all authors describe what I shall refer to as the orthodox or classical bimanual technique described in Hutchison's "Clinical methods". The patient lies supine and the doctor examines from the right side of the patient with the left hand exerting anterior pressure over the posterior part of the left lower ribs while palpation of the spleen is carried out with the right hand. This is the method familiar to all doctors and medical students. Leopold (1965) holds strong views however against this method. He emphasises that the examiner should palpate for the spleen with the left hand, sitting on the left side of the patient while the right hand should be beneath the patient's left flank exerting anterior pressure. He criticises examination from the right side of the patient as he feels that the examiner is not in a relaxed and comfortable position if palpating for the spleen. Walker (1952), while describing the orthodox bimanual technique, is indifferent as to whether the examiner should be on the right or left side and leaves the choice to the reader. Hochstein and Rubin (1964) insist on preliminary percussion of the extent of spleen dullness before starting palpation. Macleod (1964) specifically disagrees with this view and feels that "percussion is a poor second method". Vakil and Golwalla (1961) favour as a start examination with the right hand only and advocate the usual bimanual method if the first method does not detect splenomegaly.

More variety of description arises

when other alternative methods are described by different authors. A favoured alternative variation mentioned by many is the right lateral position. The patient turning over to his right side while keeping the spine straight. There are two varieties of this method judging from the different descriptions: a) the "half" right lateral position and b) the "full" right lateral position. In Hutchison's book the patient is asked to roll over "half on to his right side". Pappworth (1960) also advocates this "half right" method as do Prior and Silberstein (1963) and DeGowin (1965). Most other authors apparently recommend the "full right" position. Reading through the different descriptions given reveals different versions depending principally on the position of the lower limbs. Thus Adams (1958) and Vakil and Golwalla (1961) mention that the thighs and legs should be flexed but give no further details. Macleod (1964) likes the left hip and knee flexed "to a right angle". Judge and Zuidema (1963) also insist that the right leg should be straight while the left knee should be at a right angle.

Another favourite method mentioned as an alternative by many authors is the one popularly referred to as Middleton's method. This method essentially consists in the examiner being stationed near the patient's left shoulder, facing his legs as the patient lies supine. The palm or palms of the examiner's hands are placed over the lower thorax and the fingers hooked below the left costal margin ready to detect any splenic enlargement as the spleen descends on inspiration. In some variants of this method the patient is asked to keep his left forearm hooked underneath his left flank (Pullen, 1950), while in others the examiner's left hand is placed posteriorly beneath the patient while palpation is carried out with the right hand (Hochstein and Rubin, 1964). Another modification is palpation from the left side with the patient in the right lateral position (Martini; Adams).

Unusual manoeuvres have also been advocated by a few authors. Thus Bockus suggests that in special cases in patients of "splanchnotic habits" in whom ptosis

of the spleen or moderate enlargement is suspected the patient should stand up and jump up and down on both feet and then be examined in the supine or right lateral position. Adams (1958) suggests that in difficult cases where other methods have failed, the patient should be examined standing up with his trunk slightly forward. It is interesting to note that there is in the British Museum a relief showing an ancient Greek physician, Jason, palpating the left hypochondrium of a patient in exactly the same way.

The scope of this article is twofold. The first scope is to describe a simple and efficacious new manoeuvre aiding the detection of slight splenomegaly in "difficult" patients. The second is to draw the general reader's attention to the large number of variations in methods of abdominal relaxation and examination for the spleen favoured by various authorities on the subject. It is not meant to be an exhaustive review. A number of aspects have purposely not been discussed. It is common clinical experience that the successful demonstration of a slight splenomegaly may be an all important clinical clue and is perhaps one of the most common sources of inordinate clinical pride and controversy at the patient's bedside. As Palmer (1963) has phrased it, no physical finding creates more interest whenever doctors meet over a patient and the different techniques favoured by individual doctors are the cause for the all too frequent disagreement over the size of the organ. The vast majority of doctors have been taught only a few of the methods advocated in examination of the abdomen and in particular, the spleen. It may be easy therefore and unjustified for dogmatism to arise on the subject of methodology, though some methods may be better than others. The final point one wishes to emphasise here is that if one method has been unsuccessful in detecting splenomegaly, then other methods may be of profit.

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