ABDOMINAL HYPERAESTHESIA IN ARMY DYSPEPTICS

BY

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In a leading article in the *Journal* of December 14, 1940 (p. 836), the problem of the disposal of the dyspeptic soldier was discussed, and it was clearly demonstrated that such a man is likely to be a permanent liability to the Army, since a continued light diet is seldom a practical measure on active service. The statement that "it is highly questionable whether men with a prolonged history of organic dyspepsia . . . should be allowed to join the fighting Services" will be endorsed by every unit medical officer; but once a man is enlisted it rests with the medical officer to determine what is a "prolonged history" and what is "organic dyspepsia." The article continues: "The doubtful case should be handled by the expert gastro-enterologist and investigated by every known means at our disposal," which is certainly a counsel of perfection. But the unfortunate M.O. meets "doubtful cases" every morning on his sick parade, ranging from the man who is honestly worried by a slight feeling of distension after his generous midday rations to the true malingerer who "knows all the answers" and is now happily rare. The commonest case to meet is the man who feels it is always worth "trying it on" the new M.O.

It is manifestly impossible for every man complaining of abdominal discomfort to be fully investigated by an expert gastro-enterologist, and in the absence of gross vomiting or definite physical signs the persistent impotency of the patient is the most potent factor in securing the desired period of residency in hospital. Hence it was felt that some test which could be easily applied by the M.O. would be invaluable in sifting out organic disease without it being in any way necessary to establish an exact diagnosis—some way, in fact, to diminish the number of men sent in to military hospitals for radiography, diet, and observation, a process which often takes many weeks.

Technique of the Investigation

The old test of abdominal hyperaesthesia was used and findings correlated with radiography. Thirty cases of dyspepsia admitted for investigation to one ward of a military hospital were examined physically and radiologically. The only common factors were the complaint of dyspepsia and the exhaustion of the patience of the M.O. Service varied from 17 years to 3 months, the age limits were 24 and 53, and symptoms had been present from 5 weeks to 16 years.

After routine oral and abdominal examination the test for hyperaesthesia was conducted with the man's own four-pronged dinner fork; this was drawn down the front of the chest and abdomen, from nipple level to Poupart's ligament, in vertical lines repeated from right to left, the patient being instructed to indicate should he feel anything unusual. This was followed by similar strokes from below upwards, and others horizontally round the abdomen. It was significant that the majority of men appeared profoundly sceptical at first, but were amazed to find themselves calling out spontaneously at the change of sensation experienced; few could describe the phenomenon accurately, but such remarks as "It went sharper," "Like an electric shock," and "A tingling sort of feeling" were common. Especial care was taken throughout to keep the fork at the same angle to the skin when the costal margin was traversed, as the zones of hyperaesthesia were often encountered in this site.

Results

Only 7 out of the 30 patients examined failed to show an area of hyperaesthesia; such a proportion is accounted for by the method of selection, since every one had convinced some M.O. that he had an organic gastric lesion. However, the presence of hyperaesthesia was found to be much more constant than the shape of the area, and it was eventually decided to classify cases purely into upper abdominal and lower abdominal areas, and unilateral or bilateral. The former distinction was invariably obvious, since no area occupied both the hypochondrium and the iliac fossa, and the para-umbilical zone was rarely affected.

TABLE I.—*Site of Hyperaesthesia (30 Cases)*

Supra-umbilical—bilateral	..	..	..	..	9
" " —right only	..	..	..	..	11
" " —left only	..	..	..	..	1
Infra-umbilical—right only	..	..	..	..	2
" " —left only	..	..	..	..	0
No hyperaesthesia	..	..	..	..	7

Radiological investigation was carried out to determine the connexion between hyperaesthesia and the organic condition of the stomach as demonstrable by radiography.

TABLE II.—*Results of Barium Meal Radiography*

A. Without hyperaesthesia (7 cases):					
Normal stomach and duodenum	..	..	..	..	3
Some degree of gastroptosis	..	..	..	..	2
Evidence of old duodenal ulceration, probably healed	..	..	..	..	2
B. Upper abdominal hyperaesthesia (21 cases):					
Duodenal ulcer demonstrable	..	..	..	..	12
Gastric ulcer demonstrable	..	..	..	..	2
Spasm suggestive of ulcer	..	..	..	..	2
Gastroptosis	..	..	..	..	1
Gastritis present	..	..	..	..	4

Each of the two cases with hyperaesthesia in the right iliac fossa showed a slight pylorospasm on radiography.

Comment

Fourteen cases of upper abdominal hyperaesthesia had peptic ulceration confirmed by radiography; the hyperaesthetic area was typically situated below the ninth right costal cartilage, with often a similar area of less intensity on the left; the only case with purely left-sided signs showed a gastric ulcer of the lesser curve.

Seven further cases with hyperaesthesia had abnormal radiographs, and taking into consideration the previous history and present symptoms there was enough evidence for reference to medical boards.

Two cases of chronic appendicitis had attention focused upon them by the discovery of hyperaesthesia in the right iliac fossa.

Of 7 cases without hyperaesthesia the radiographs were normal in three and revealed gastroptosis in two; in the other 2 cases, 1 had had an old ulcer but had been symptom-free for over a month, while the final case still had symptoms.

Conclusions

From the varying nature of the lesion which can produce right hypochondrial hyperaesthesia it is evident that no peritoneal involvement is needed for the production of the sign; yet the fact that not one case with hyperaesthesia presented a radiograph that could be classed as normal must be evidence that some organic disturbance of the mucous membrane or musculature is necessary for its production. Whether such a lesion will necessarily be severe enough to justify "boarding" a man out of the fighting Forces is debatable, but we draw the conclusion

that the presence of upper abdominal hyperaesthesia in an Army dyspeptic is sufficient to warrant hospital investigation.

Summary

Abdominal hyperaesthesia has been tested in 30 Army dyspeptics suspected of peptic ulceration.

Its presence has coincided considerably with abnormal radiological findings.

It is claimed that such a test may give R.A.M.C. officers in charge of troops some clear indication of which dyspeptic cases will require hospital investigation and which may be retained with the unit.

THE INCIDENCE OF SCABIES AND ITS APPARENT DEPENDENCE UPON SUBNORMAL INTELLIGENCE

BY

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Scabies constituted the greatest single cause of incapacity among troops stationed in 1915 in the United Kingdom (*Official History of the Great War*, 1931). It was noted that from 1916 to 1920 the ratio of cases occurring in France to those in the United Kingdom was about 20:18, the observation suggesting that the insanitary conditions of trench warfare were less important as an aetiological factor than is commonly supposed. Recent clinical experience suggested that the man who is most likely to contract scabies is the "dullard" or the mental defective.

Accordingly a preliminary sample of 100 unselected scabietic patients has been examined to assess their intelligence. The results have been compared with those obtained in a control sample of 500 consecutive recruits at a R.A.M.C. depot tested in the same manner. The test employed was the R.E.C.I. progressive matrices (Penrose and Raven, 1936; Raven, 1939), the sets A, B, and C being used, as these give a high degree of differentiation between individuals of average and those of below average intelligence. The validity of each score was confirmed by comparing the marks in each set with the expected "break-up"—i.e., distribution of marks between the three sets. With a possible total score of 36, the middle 50% of the scores in the control group fell between 27 and 32 inclusive, the median being 30; and these scores were considered "average." The 5% scoring 19 or less were termed "very inferior," the 26% scoring between 33 and 36 "above average." The same score standards were adopted in grouping the scabietic patients, of whom only 14% scored above the median of the control group. The table shows the comparison between the groups.

Marks	Control	Scabies	Group
0-19	5%	27%	"Very inferior"
20-26	19%	42%	"Below average"
27-32	50%	28%	"Average"
33-36	26%	3%	"Above average"

Thus it is seen that the scores of 27% of the scabietic patients lie in the "very inferior" group—i.e., low enough to warrant the suspicion of mental defect; while those of another 42% fall below the "average" range; only 3% achieved "above average" scores. The differences are shown diagrammatically below.

Although the investigation of a comparatively small series is inconclusive, the results suggest a close correlation between the incidence of scabies and that of subnormal or defective intelligence.

Discussion

Scabies prophylaxis in the Army includes regular bathing, avoidance of overcrowding in billets, disinfection of blankets, clothing, and latrines, the inspection of troops, and the treatment of developed cases in isolation. Nevertheless, the high incidence continues. Some cases undoubtedly come from propinquity or from infection acquired at home whilst on leave. Personal uncleanness predisposes to infection, and a large number of scabietic patients have dirty clothes, dirty skins, and dirty habits. At home stations the majority of troops are within reach of normal sanitary amenities, but some men remain dirty however good the facilities and however strict the discipline. These men are usually of much below average intelligence. Such men may well form a nidus, infecting from time to time their more intelligent fellows. To rid the Army of the mentally defective would go a long way toward ridding it of scabies.

This inquiry is continuing on a larger scale, and venereal disease, pediculosis, and other cutaneous diseases are being investigated similarly.

Summary

100 unselected scabies patients and a control group of 500 consecutive recruits have been submitted to an

intelligence test. Scores suggesting subnormal and low-grade intelligence were found in great excess among the scabietic patients.

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J. D. Rolleston (*Clin. J.*, 1940, **69**, 321), who emphasizes the rarity of laryngeal diphtheria in adults, has collected twelve cases in adults aged from 22 to 76, including one of his own in a woman aged 76. Five were in men and seven in women. In five the larynx only was affected, in six the fauces as well, and in one no details were given. Intubation was performed in two, tracheotomy in one, laryngotomy and tracheotomy in one, intubation and tracheotomy in one, and no operation in seven. In five the laryngeal symptoms were confined to loss of voice and a croupy cough, which helps to explain the unusually low mortality in the present series. The death of George Washington at the age of 67—which has been variously attributed to laryngeal diphtheria, Vincent's angina, Ludwig's angina, tuberculosis, pneumonia, and cancer—was most probably due to septic sore throat.