

It is in these cases that atropine is of value. The deformity may disappear or the amount of the six-hour residue may be affected.

We have not found it necessary to give a cathartic either before or after the examination except in patients who are habitually constipated, nor has there been a single case of injury to the patient either by exposure to the ray or from barium. The digestive tract, however, should be free of barium at the time of operation.

It is only fair to state that the cases tabulated in this series represent work done at a time when the technic was being built up, and that they contain errors which would now be avoided.

In conclusion, we wish to state our belief that the technic which has been used by us, and which, with slight modifications, is that used by Barclay and Carman, offers the best chance of obtaining correct roentgen findings with the least possible cost, and that in hospital clinics, at least, it is the method of choice.

THE INCIDENCE OF VISCEROPTOSIS.

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AN examination of the literature shows that there is still considerable lack of unanimity concerning the etiology, frequency, and significance of visceroptosis. From our own study of the subject, we have come to agree with those who believe that visceroptosis is very frequently encountered, and that in a large majority of the cases it is congenital, or perhaps, better still, a predisposition to revert to a more primitive type. While acquired cases no doubt exist, they must form but a small percentage of the total. Faulty dress, corsets, repeated pregnancies, and rapid loss of weight play but a minor part, if any, in the etiology. We have frequently had occasion to examine multiparae, with relaxed abdominal walls, without finding any evidence of ptosis. The same is true following rapid loss of weight. We have encountered the condition in children of both sexes.

Apparently, we have not yet reached that stage of evolution in which our organs are ideally supported. Whereas, in the four-legged stage, the spine forms a satisfactory support for the viscera, in the upright position, on the other hand, it fails to perform this function properly. Ptosis, then, is a condition in which

the organs sink to a lower level in the abdomen than we are in the habit of calling normal. Almost all the viscera, especially the stomach, tend to be long and narrow, and to conform to the general type of the body.

It is to be hoped that with the popularization of the x-ray for routine clinical examinations, and with the adoption of standard uniform methods of investigation, this subject will be adequately studied in the near future, and that many of its mooted questions will be satisfactorily answered.

It is our object, in this paper, to present as objectively as possible a brief statistical review of material that has been collected during the past four years.

Material and Methods. The ultimate basis for this study is a consecutive series of 1600 private patients complaining of "stomach trouble." It may be well to explain at the outset that by no means all of these individuals had actual lesions in the digestive tract. Many, as might be expected, were suffering from disturbances of other systems, such as the pulmonary, cardio-renal, nervous, etc. Of this total, 898 were subjected to a routine x-ray examination. This consisted, as far as the digestive tract is concerned, in the examination of the patient at intervals after the administration of an opaque meal. In the earlier cases, 50 gms. of bismuth carbonate was used, later 100 gms. of barium sulphate. This was mixed either with 300 gms. of cereal or 500 cc. of buttermilk. In accordance with the findings of others, our results were practically the same whichever combination was used.

The diagnosis of ptosis was made from the fluoroscopic and radiographic examinations. For the sake of more ready comparison with the results of others, we have grouped as ptotic those stomachs whose lowermost point (taken when filled as above described, the patient standing), reached more than 2.5 cm. (one inch) below a horizontal line joining the top of the iliac crests. All our calculations have been worked out on this basis. However, we feel that a more conservative and perhaps safer standard would be to diagnose ptosis only when the lowermost point of the gastric shadow reaches more than 5 cm. (2 inches) below the interiliac line. The smaller group, based on this reading, constitutes 72% of the larger, and our absolute figures may, in fact, be correspondingly excessive. We believe, however, that our *relative* findings would not be found materially changed, should they be worked out for the more severe cases only.

General Incidence. In our series of 898 x-ray cases, gastropptosis occurred 579 times, a general percentage incidence of 64.4. If the alternate reading be adopted (*i.e.* ptosis = descent of more than 5 cm.) the incidence is 417, a frequency of 46.4%.

Sex Incidence. Of 483 men examined, 279 were ptotic, or 57.7%; of 415 women examined, 301 were ptotic, or 72.5%.

Age Incidence. Of 464 individuals under 40 years, 322, or 69.3%, had ptosis. Of 434 individuals, 40 or over, 257, or 59.2%, had ptosis. These findings were generally taken to mean that ptotic individuals are more likely to complain of symptoms in youth than later in life.

Age and Sex. Of 231 men under 40, 151, or 65.3%, had ptosis. Of 252 men 40 years or over, 127, or 50.3%, had ptosis. Of 233 women under 40, 171, or 73.3%, had ptosis, whereas of 182 women 40 years or over, 130, or 71.4%, had ptosis. The above *general* findings as to age and sex distribution, therefore, hold true in each sub-group.

Married State (childbirth). Of 122 single women, 95, or 77.8%, had ptosis; of 293 married women, 206, or 70.3%, had ptosis. Ptosis is, therefore, not "caused" by childbirth.

Age and Married State. Of 104 single women under 40, 78, or 75.0%, had ptosis. Of 18 single women 40 years or over, 17 (all but one), or 94.4%, had ptosis! This is a rather striking finding, and is also the first sub-group in which the general rule of age incidence does not seem to apply. Possible explanations are: (1) elderly single women, being generally self-supporting, are subject to greater physical and nervous strain than married women of the same age; (2) this group may represent women who are "unfit" for marriage.

Of 129 married women under 40, 93, or 72%, had ptosis, whereas, of 164 married women 40 years or older, 113, or 68.9% had ptosis.

So far we have dealt only with gastroptosis. This is simply because of the ease with which the position of the stomach can be ascertained by the x-rays. Of course the condition may be shared in varying degrees by any of the viscera of the chest or abdomen. Thus coloptosis is practically always associated with gastroptosis; in many cases the heart, kidney, liver or spleen may also join in the general descent, or any of these may be involved without ptosis of the stomach. In order to furnish some idea of the incidence of the various combinations, our last 100 cases, respectively available for each special examination, were reviewed both from the clinical and the roentgenological standpoint. Cardioptosis was diagnosed roughly from a median position of the heart, as seen during the fluoroscopic examination. No attempt was made to refine the diagnosis according to the tenets of Schwartz. All kidneys, which could be palpated *standing*, were regarded as ptotic. A palpable spleen not otherwise explicable was regarded as ptotic. A liver edge visible below the iliac crests in the "standing" x-ray plate was similarly grouped.

Our results were as follows: 22% of the hearts seen fluoroscopically were of the median variety; 77% of the livers visible in the x-ray plate

reached below the interiliac level; 30% of the kidneys which were felt for were actually palpated (in 3% of the cases both kidneys were felt); between 1 and 2% of the spleens were ptotic.

CONCLUSIONS.

1. In our x-ray series of 898 patients with digestive symptoms, the incidence of gastroptosis was 64.4%. Marked gastroptosis occurred in 46.4% of the cases.

2. The condition was only slightly more frequent in women than in men, the proportion being about 6 to 5.

3. The condition occurred more often in individuals under 40 years than in those 40 or over, and this relationship held for both sexes.

4. Gastroptosis was more frequent in single than in married women, in the proportion of about 13 to 12. In our series, practically all single women over 40 were ptotic.

5. In addition to gastroptosis, our cases had ptosis of other organs (demonstrable by x-ray or palpation) as follows: Liver 77%, right kidney 30%, heart 22%, both kidneys 3%, spleen 1 to 2%.

6. The above clinical study does not support the view that visceroptosis can be ascribed to improper garments, the occurrence of pregnancy, or to any other incidental cause. It seems that the condition is intimately related to the structure of the body, and probably arises from some congenital predisposition.

7. Ptosis is in itself not a disease. While under certain conditions in predisposed individuals, even the milder forms may cause sufficient suffering and discomfort to lead to a state of chronic invalidism, on the other hand, the most marked types need not necessarily prevent the affected organs from performing their proper functions.

Medical Progress.

REPORT ON DERMATOLOGY.

By JOHN T. BOWEN, M.D., BOSTON.

1. DERMATITIS FROM HAIR-DYES.
2. FOOT AND MOUTH DISEASE IN MAN.
3. OCCUPATIONAL INJURIES DUE TO RADIUM.
4. ONE REPORT ON RADIUM IN SKIN AFFECTIONS.
5. HUMAN SERUM AND BLOOD IN THE TREATMENT OF PSORIASIS AND OTHER SKIN DISEASES.
6. LESSENED RESISTANCE OF THE SKIN.

DERMATITIS FROM HAIR-DYES.

Bunch¹ relates several interesting experiences that he has lately had with dyes for the hair.