

no less than 58 femoral herniæ must at one time have existed and that quite unknown to the persons concerned. It is well known that femoral hernia occurs with far greater frequency in women than in men, and granted a pre-formed femoral sac occurs with equal frequency in both sexes I would suggest that a hernia is more likely to develop in women mainly for two reasons: 1. Because in females the lateral expansion of the pelvis which takes place about puberty would tend to widen the mouth of a peritoneal diverticulum in the femoral region. 2. On account of increased pelvic pressure during pregnancy.

These suggestions receive some support from the fact that femoral hernia appears with greatest frequency during the child-bearing period. I gladly take this opportunity of thanking Dr. Nathan Raw for permitting me to make use of the investigations made in the post-mortem room of the Mill-road Infirmary, for the information obtained is, I believe, strong evidence in favour of the saccular theory of hernia.

I am, Sirs, yours faithfully,

Liverpool, March 25th, 1907.

R. W. MURRAY.

*Potential Hernial Sacs in 200 Consecutive Post-mortem Examinations made upon Persons in whom during Life there was no History or Evidence of Hernia.*

No.	Sex.	Age.	Potential hernial sac.
1	Male.	48	Double inguinal and right femoral.
2	"	61	Double inguinal.
3	"	46	Left femoral.
4	"	57	Right femoral.
5	"	39	Right inguinal (contained omentum).
6	"	55	Left inguinal (contained omentum).
7	"	42	Left femoral.
8	"	29	Right femoral.
9	"	44	Double inguinal and double femoral.
10	"	30	Right and left femoral.
11	"	63	"
12	"	62	Right femoral.
13	"	32	Left inguinal.
14	"	45	Right femoral.
15	"	60	"
16	"	61	Right and left femoral.
17	"	44	Right femoral.
18	"	64	"
19	"	33	Right and left femoral.
20	"	54	Right femoral.
21	"	22	Right and left inguinal.
22	"	63	Right femoral.
23	"	44	Right and left femoral (small opening).
24	"	64	"
25	"	28	Right and left femoral.
26	"	31	Right femoral.
27	"	44	Left femoral (small opening).
28	"	24	Right femoral.
29	"	56	Right and left femoral and umbilical.
30	"	55	Left femoral.
31	Female.	40	Right femoral.
32	"	14	Right and left femoral
33	"	62	Left femoral.
34	"	54	Right femoral.
35	"	33	"
36	"	60	Right and left femoral.
37	"	47	Left femoral (contained omentum).
38	"	56	Umbilical contained omentum).
39	"	30	Left femoral (small opening).
40	"	43	Right femoral.
41	"	30	"
42	"	37	Left inguinal.
43	"	44	Right femoral.
44	"	62	"
45	"	7	Right and left femoral (small opening).
46	"	68	Right femoral and left inguinal.
47	"	18	Left femoral.

Case 46 had also a large umbilical hernia. In Case 29 the umbilical sac contained a small piece of omentum.

These cases were examined at Mill-road Infirmary; list completed June 15th.

200 bodies examined.

In 47 bodies 68 peritoneal diverticula were found. The average age of these 47 persons was about 44 years. 30 were males and 17 were females.

In 16 instances more than one diverticulum was present.

In 30 males the average age was 47½ years; in 17 females it was 40 years. The youngest person was seven years of age, the oldest 68.

## BLOOD CULTURE IN TYPHOID FEVER.

To the Editors of THE LANCET.

SIRS,—Dr. T. J. Horder's exceptional experience in blood culture makes his record of the cultivation of the typhoid bacillus without dilution of high value. I think his case compares and contrasts instructively with ours, especially so in this point. My experience is that growth occurs of certain organisms more readily in blood well diluted than in high concentration, when planted simultaneously from an infected source. In this I agree with Libman,<sup>1</sup> Buxton,<sup>2</sup> McCrae,<sup>3</sup> Castellani,<sup>4</sup> and others; but streptococci, staphylococci, and pneumococci seem to do better in concentrated blood.

The importance of the nutritive medium on the growth of bacteria is perhaps hardly recognised at its true value; and Dr. Horder does well to draw attention to it. The effect of soil on their characters is seen in Eyre's work on the pneumococcus, in Gordon's on the meningococcus, m. catarrhalis and streptococcus glomeratus; in the observations of Benham, Nash, and myself on diphtheroid bacilli; of Foulerton on "yeasts" in angina; of Wilson on a "meningeal" diplococcus, pleomorphic on various media; of Thomson on a Gram-negative meningococcus, which assumed a pneumococcus Gram-staining form on serum agar; of alteration of virulence after "passage" (contamination being excluded as a source of fallacy). The observations of Heubner, Hutmel, and Wilson point to the fact that the Gram staining properties of intracellular meningococci vary and that there is a close association between them and diplococcus pneumoniae.<sup>5</sup> Indeed, "variation" in bacteria (e.g., the giant forms of bacillus typhi, of diphtheria bacilli, of streptococci, &c., seen in old cultures and the extraordinary variation in the members of the colon group observed by Klotz) is so striking that I look to environment to explain the variation that leads animal cells to form neoplasms. It would be of interest to know if Dr. Horder's typhoid bacillus agglutinated with an immune serum, for it is clear that the typhoid bacillus and the cholera vibrio cannot be identified with certainty by culture. Savage, Lorrain Smith, and Klotz have found, moreover, in water-supplies bacilli which give a positive agglutination with typhoid-immune serum in over 100 per cent. dilutions and yet are not typhoid bacilli, and similar phenomena are observed by Rüffer in the cholera vibrio.

I am, Sirs, yours faithfully,

April 8th, 1907.

F. G. BUSHNELL.

## WHY NOT AN ASSOCIATION OF MEDICAL REFEREES?

To the Editors of THE LANCET.

SIRS,—The new "Workmen's Compensation Act," or so-called "Domestic Servant's Charter" will soon come into operation. It has caused widespread excitement, not to say consternation. It is foredoomed in its early life to give rise to frequent litigation. The insurance companies are scrambling over each other in their eagerness to obtain their share of the new business; new companies have been formed with similar intent; legal aid societies are coming into being; lawyers—especially of a certain class—are sharpening their quills; and referees are "bucking up" in anticipation of "the good time coming" after June.

May I suggest that this is the psychological moment for forming an Association of Medical Referees, either on an independent basis or, since amalgamation is the order of the day, in association with some other society, such as the "Life Assurance Medical Officers' Association"? Such an

<sup>1</sup> Reports of Mount Sinai Hospital, New York, and Johns Hopkins University.

<sup>2</sup> Reports of Bellevue Hospital and Loomis Laboratory, New York, quoting others.

<sup>3</sup> Reports of Royal Victoria Hospital, Montreal.

<sup>4</sup> Brit. Med. Jour., May, 1906, quoting Shottmüller and others.

<sup>5</sup> Journal of the American Medical Association, December, 1901.