ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

MEDICINE.

The Symptoms due to Cervical Ribs. By Wm. Thorburn (Medical Chronicle, December, 1907).—It is only within the past three years that the symptoms of pressure on the brachial plexus have been recognised as being, in a large proportion of the cases, due to pressure from a cervical rib. In that time the author has seen thirteen such cases, nine of which are recorded in this paper.

Most often these ribs are bilateral, and most often found only in connection with the seventh cervical vertebra; it is very rare to have ribs attached to the sixth vertebra as well. When fully developed the ribs extend outwards, or forwards and outwards, in the posterior triangle of the neck; and they may terminate in a free end, or join on to the first dorsal rib, or first dorsal costal cartilage, or on to the sternum. The shape of the ribs vary considerably in the different cases. The rib may be broad and flat like the first dorsal, or long and thin like the twelfth dorsal. It may be so short as not to be much longer than the transverse process of the vertebra; or may curve right round the neck to join the sternum in front. The direction or situation of the rib in the neck is of importance, for it is only when the rib curves round in the posterior triangle of the neck that pressure symptoms supervene; and the subclavian artery will only come in contact with the rib when it reaches the anterior part of the neck. The subclavian artery and vein, as well as the brachial plexus, pass across a cervical rib so situated, sometimes grooving it, and it is to this anatomical arrangement that symptoms are due. Sometimes there is a slight scoliosis and torticollis, but the chief symptoms are due to pressure on the artery, vein, or nerve. In spite of the fact that cervical ribs are most often present on both sides, the symptoms are usually unilateral, and the right side is more often affected than the left, due probably to the right arm being more in use than the left. The condition, too, is very much more common in women than in men—every one of Mr. Thorburn’s cases were women; but the reason for this is not apparent. The symptoms come on usually in early middle life, the youngest case being 17 years of age and the oldest 70. This, doubtless, means that ossification is complete in early middle life, and there is then more resistance in the ribs than at an earlier age. Pressure on the subclavian artery causes weakening of the pulse on the affected side, and this is relieved by raising the arm. There may be gangrene of the tips of the fingers, and arterial thrombosis. A V.S. murmur may be heard over the vessel. The vein is less often affected, and when it is there is oedema of the affected arm. The affected limb feels cold, and looks more cyanosed than on the sound side. The nervous symptoms may be entirely subjective, e.g., pain, and a feeling of weakness in the limb; or there may be paralysis, atrophy, and anaesthesia. In the former case, the one prominent symptom is pain usually referred to one or other arm. There may be degrees of intensity of the pain, but it is usually described as a tingling or numb feeling. It is often aggravated by cold. The distribution is fairly characteristic, being usually referred to the ulnar border of the fore-arm, and extending from above the inner condyle of humerus to the styloid process of the ulna and into the fingers. It thus follows the distribution of the first dorsal, or first dorsal and eighth cervical roots.
When paralysis is present the same roots are seen to be involved. It is usually most marked in the muscles of the thumb, and less so on passing towards the ulnar side of the hand, though generally all the intrinsic muscles of the hand are affected. When spasm is present it is most marked in the muscles on the ulnar side. There is occasionally some weakness in the flexors of the fingers, and the flexor carpi ulnaris may also be involved. There is always atrophy in the affected muscles, and in a marked case the hand becomes the typical main en grefie. When anaesthesia is present it has much the same distribution as the pain. The thermal sense seems to be first affected, and the sense of pain is more readily lost than that of touch. It is rare to find complete anaesthesia in these cases.—W. K. Hunter.

Purulent Cerebro-spinal Meningitis caused by the Typhoid Bacillus without the usual Intestinal Lesions of Typhoid Fever. By J. Norman Henry, M.D., and Randle C. Rosenberger, M.D. (American Journal of the Medical Sciences, February, 1908).—This patient, a coloured man, aged 34, was admitted to hospital on account of headache, dizziness, constipation, and fever of six days’ duration. Careful review of the history showed no illness previous to this. On admission, signs of cerebro-spinal meningitis were noted, and 25 c.c. of turbid fluid, which deposited a heavy purulent sediment, were obtained by lumbar puncture. Examination of the deposit showed 96 per cent polymuclear cells, 2 per cent lymphocytes, and 2 per cent hyaline cells. Numerous bacilli, intracellular and extracellular, were noted. They were chiefly in the polymuclear cells, although a few were also seen in the hyaline forms and lymphocytes. These organisms possessed the morphological and tinctorial properties of bacillus typhosus, and were indistinguishable from it on culture. A similar organism was cultivated from the blood. The patient died three days after admission. The post-mortem summary was:—Purulent cerebro-spinal meningitis; cloudy swelling of the liver and kidneys; acute catarrhal enteritis, with enlargement of Peyer’s patches. The Peyer’s patches were large only in their flat extent, but not raised. They were pale, and showed no signs of ulceration. The mesenteric glands were slightly enlarged, of fleshy consistency, and reddened.

The authors consider that the meningitis was a primary lesion due to the typhoid bacillus.—Arch. W. Harrington.

Lack of Gastric Mucus (Amyxorrhœa Gastrica) and its Relation to Hyperacidity and Gastric Ulcer. By J. Kaufmann, M.D. (American Journal of the Medical Sciences, February, 1908).—For several years the author has noted the amount of mucus in the gastric contents after test meals. He has examined several thousand cases one hour after Ewald’s test breakfast had been given. In this paper he confines himself to the description of a complete lack of mucus in the gastric contents. The presence of mucus is recognised by the coherency of the contents. This coherency is more pronounced when the mucus is pathologically increased. When no mucus is present the bread particles are distinctly separated, and a layer of clear fluid quickly forms on the top of the bread. Where there is much mucus this separate layer of fluid shows a distinctly slimy character. The rate of filtration, and the appearance of the bread left on the filter paper, are also of assistance. Microscopically, when gastric mucus is present, the different elements of the stomach contents are bound together by the coherent mucus into smaller or larger clumps. The mucus is recognised by numerous myelin drops, which are thoroughly mixed with the starch globules, &c. Under certain conditions the mucus appears fibrillar, or in the form of spirals. When no mucus is present no myelin drops can be seen, and the different elements appear singly, and are each sharply outlined. Lugol’s solution gives characteristic pictures. It does not mix with mucus, and therefore starch granules incorporated in mucus remain unstained.

A moderate amount of gastric mucus is found after a test breakfast. Kaufmann has noted complete absence of mucus in a large number of cases. He
concludes that the lining of the stomach is not well covered with mucus when none is found in the gastric contents after a test meal. He is convinced that all the familiar symptoms of gastric irritation are most pronounced in those patients suffering from hyperacidity who have no mucus in their gastric contents. Another observation strengthens this opinion—Lavage, with solutions of silver nitrate (1 in 5,000 to 1 in 1,000), increases the mucus without affecting the hyperacidity, yet relieves the symptoms rapidly.

Kaufmann also considers that the lack of mucus exposes the gastric mucosa to injury, and predisposes to ulceration. Any treatment which brings about an increase of mucus helps to heal gastric ulcer. Turck, who succeeded in producing artificial gastric ulcers in the dog, noted during the process of repair a great increase of myogenous cells, to such a degree that even zymogen cells were transformed into myogenous cells. Increase of mucus may thus be a favourable, while lack of mucus is an unfavourable symptom.—Arch. W. Harrington.

The Occurrence of Congenital Adhesions in the Common Iliac Veins, and their Relation to Thrombosis of the Femoral and Iliac Veins. By J. Playfair M'Murrich, M.A., Ph.D. (American Journal of the Medical Sciences, March, 1908).—The author has examined the iliac veins of 107 individuals. The adhesion consists of a fusion of the anterior and posterior walls of the vein, a diminution or division of its lumen being thereby produced. In many cases it takes the form of a column extending between the two walls of the vein, sometimes circular, and from 1 to 4 mm. in diameter, at other times more oval, its longer diameter reaching as much as 6 mm.; it varies in height and position, in the majority of cases being situated laterally to the median line of the vein, so that the lumen to the mesial side of it is greater than that to the lateral side. In a second type the adhesion occurs at the lateral border of the vein, so that the lumen is merely diminished but not divided. Of this type two subordinate forms are distinguished. In one the adhesion is of a more or less triangular form, its base, corresponding to the lateral border of the vein, measuring from 8 to 18 mm., while its height varies from 5 to 10 mm. in different individuals. In the other the adhesion is a linear one, which produces little diminution in the calibre of the vein, and may readily be overlooked.

In a third type the adhesion is at the mesial border instead of the lateral. This type is rare, but produces a marked reduction of the lumen. In the fourth type a perforation replaces the adhesion, the vein being double for a limited portion of its extent. Examples of this are rarest of all.

Of 107 cases examined, adhesions were found in 35, making a percentage occurrence of 32.7. The most striking fact was the preponderance of adhesions in the left vein as compared with the right, 32 out of the 35 occurring on the left side. As the large majority of thromboses occur on the left side, these figures are very suggestive. Any arrangement tending to interfere with the flow of blood through the veins must act as a contributory cause to thrombosis. M'Murrich considers that the adhesions are congenital in their nature, due to the incomplete disappearance of a loop by which the iliac vein in the embryo originally surrounded an artery, probably the umbilical.

Arch. W. Harrington.

Surgery.

Disinfection of the Hands. By Dr. R. Lurzmann (Zentralbl. f. Chirurgie, January 1908).—It is a well-known fact that by superficial, mechanical, and chemical disinfection it is impossible to render the hands absolutely germ-free, owing to the well-established fact that in the depths of the skin—in the sweat and sebaceous glands—are germs which cannot be reached by such methods. It is also the case that during an operation, by the