

between which it is often difficult to discriminate with accuracy. Headaches attributed to reflex causes are not easy to understand. Recent papers by Dr. William Russell strongly uphold the existence of reflex arterial spasm, as a cause of headache, and although the question of vaso-motor innervation of the cerebral arteries still remains a matter of doubt, clinical experience is in favour of a capacity of active contraction of these vessels.

Other headaches, which may be included in the reflex group, arise from the continued contraction of the occipito-frontalis muscle consequent to a strong sensory stimulus. In this manner headaches following exposure to a strong wind, and some of those associated with toothache and other pains, may be accounted for.

Dr. Saundby writes on headaches of renal origin. It is in the later stages of chronic contracting kidney that they are severe and present characteristic features. The typical renal headache is occipital and the site of pain is of some significance. Their symptoms require treatment by light non-nitrogenous diet, purging and vapour baths. Spontaneous hamorrhage is occasionally followed by improvement, and this has suggested the value of bleeding. The relief obtained by this measure is very transient, the headache recurring in a few days. Phenacetin and coffee rarely fail to give temporary relief. Trinitrin may relieve, but is uncertain, whilst erytholuitrite is more apt to cause than relieve pain.

Intracranial disease as a cause of headache is treated by Dr. James Taylor.

This headache is nearly always *paroxysmal* in character. Although dull aching may be almost constantly present, yet severe, even agonizing paroxysms arise at different times and with varying frequency. Its paroxysmal character probably depends to a large extent on variations in blood pressure, and this is probably the reason why the taking of food, and especially the administration of alcohol, are so frequently followed by headache in gross intra-cranial disease. Nausea and vomiting is another characteristic common to the headache produced by different kinds of intracranial disease, and, although often said to occur independently of food, yet the taking of food is frequently the exciting cause of both nausea and vomiting. Faintness may also be present in cases of intracranial headaches. It is sometimes induced by nausea, or if independent of this, is probably to be referred to pressure on the cardiac or respiratory centres.

In meningitis headache is usually characterized by its constancy as a dull, aching discomfort, varied by severe paroxysms of agonizing pain, often accompanied by sickness. The pain is more severe in the earlier