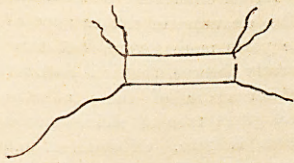


the following plan. Before I operate, I tie a piece of broad tape tightly round the head, passing below the occiput, close behind the ears, and just above the forehead. After the operation, having placed the compress on the eye, I apply a bandage of this kind, the side fitted with the double strings being uppermost. These serve to fix the bandage to the tape already round the head. Of



the strings on the other side, the long one passes below the ear, is looped over the tape, below the occiput, and, coming round again under the other ear, is tied to the remaining short string. This bandage keeps remarkably firm, and is particularly useful among the Sikhs, whose long hair plaited behind, forms a considerable obstacle to the application of any less complicated apparatus. I generally remove the bandage on the third or fourth day, if the case does well, and allow the patient to wear a shade afterwards; but, in cases in which the wound does not unite immediately, the bandage is of immense use, in keeping up a constant even pressure on the eye, and it should not be dispensed with until the anterior chamber is full.

### REMARKS ON TÆNIA ECHINOCOCCUS.

By Assistant Surgeon J. CLEGHORN, M.D., *Civil, Jounpore.*

Two years ago, when on duty at Mooltan, several large cysts, taken from the liver of a cow, were brought to me by a medical friend, and on our examining their contents under the microscope, beautiful specimens of the scolices of *Tænia Echinococcus* were discovered. I was informed that these cysts were of frequent occurrence in the internal organs, especially the liver and lungs, of the cattle slaughtered in the commissariat yard. I asked and readily obtained permission from the Commissariat Officer to inspect the carcasses while they were being cleaned, and after several months' observation I found that these cysts were very commonly present. I have now beside me notes, taken on nine consecutive days (one day intervened on which sheep were killed) during which time 45 cattle were slaughtered. Of these 28 were affected with cysts. In one-half of the 28 the liver alone was the seat of the disease, in 12 both liver and lungs; in one, the spleen, and in another, the kidney only. Frequent examination with the microscope detected the presence of scolices in these cysts, and several specimens that were forwarded to Dr. Ewart, Professor of Pathology, Medical College, Calcutta, were by him pronounced to be hydatids of *Tænia Echinococcus*.

I communicated with Commissariat Officers in several other stations, and they all agreed in stating that the "watery bags" were very common in cattle throughout the Punjab: but little attention had been paid to them, as they were considered to be merely "watery bags" and perfectly harmless.

It may perhaps be as well here to state succinctly the natural history of the cestode.

The fully developed worm rarely exceeds one quarter of an inch in length, and is composed of four segments or joints. It is said to be self impregnating, and a fully-grown joint is supposed to contain 5,000 eggs. The embryos are developed in the latter, and are provided with hooklets. The habitat of the worm is the intestinal canal of the dog and wolf; the eggs are passed with the droppings of these animals, are swallowed by cattle, &c., when grazing, and by man with his food, especially with the vegetable and watery portion of it. The embryos, having gained entrance into the intestines, bore their way into the liver, by means of their hooklets, when they become developed into hydatids or acephalocysts, frequently attaining a large size, and in the interior of which the scolices are produced. When these scolices find their way into the intestines of a dog, they

gradually grow, ultimately becoming a mature tape-worm, and completing the circle of development.

Frerichs and other writers on diseases of the liver state that hydatids are rarely met with in the human subject in India. A practical acquaintance with the diseases of this country seems to confirm that opinion, but I think I have shown that hydatids are by no means new in the cattle of the Punjab. It becomes an interesting question, how to account for the apparent immunity from this disease possessed by the European troops and natives.

In Iceland where the numerous dogs are all infected with this worm, and provide an abundant supply to embryos, one-sixth of the inhabitants suffer from hydatids in the liver. In the Punjab, where there appears to be an equally prolific supply, man remains unaffected. This exemption may in the case of the native be only apparent, as attention has never been directed to the subject, and as it has generally been believed that this tape-worm was never or rarely found in India. We know from published post-mortem examinations that European troops are comparatively free from the disease. Hepatic abscess is however a frequent cause of death among the troops, and as dysentery can only account for a certain number of these abscesses, it may be well worth considering if the embryos of *Tænia Echinococcus*, in boring their way into and settling in the liver, may not give rise to such an amount of irritation, in an organ already irritated and prone to take on inflammatory action, as to lead to abscess. The inflammation would, in the first instance, be confined to the spot occupied by the embryo, extend from it as a centre, and a single or topical abscess, as distinguished from pyæmic abscesses, would be the result. Suppuration of fully developed cysts has frequently been met with in Europe—(see Frerichs, Rokitansky, Murchison, &c.); and difficulty has occasionally been found in distinguishing them from tropical abscess.

Of course, the only means by which we could ascertain that an abscess had been caused by an embryo, would be the discovery of some of the hooklets of the latter, in the pus. The finding of them would be a difficult and tedious operation.

Several years ago I attended an Eurussian for hepatic abscess, which ultimately proved fatal. On post-mortem examination, two large abscesses, communicating with each other, were found in the right lobe, and a degenerated hydatid cyst entirely occupied the left lobe. There was an abscess, the size of a turkey's egg, in each hemisphere of the brain.

The presence of abscesses in liver and brain with hydatid cyst in the same person is, I think, suggestive. The coincidence may have been accidental, and must be considered as such, until other similar cases are published.

### DARJEELING.

By Surgeon T. MATHEW, *Officiating Civil Surgeon.*

(Continued from page 160.)

THE climate of Darjeeling and its environs, in the six months between November and April, cannot be over-praised; as soon as the last showers of the monsoon have passed away, there follows a long run of settled weather, characterised by days of cloudless skies, and nights of sufficient frost to brace the morning air. The average temperature is 46°, and there are no more than 10 or 11 degrees of variation in the 24 hours. The atmosphere is thoroughly dry and transparent, the noble snowy range, glistening in the brilliant sunshine, is a constant feast to the eye, the 'feel' of the open air is most invigorating; altogether the climate, during this period, is faultless. Towards the end of January, there are some foggy days, followed by rain, or perhaps a single fall of snow, and then the weather clears again until the south-west monsoon sets in, with heavy showers of rain and hail. I should be at a loss, were I called upon to name any class of adult invalids, to whom the winter of Darjeeling could be detrimental; but it seems waste of time to point out its advantages; the fashion is to ignore