

is comparatively high. When the rice is stored under such conditions as to exclude sunlight and air it favours the growth of such organisms. Moreover, the organisms adhering to the gunny-bags and thus infecting the rice stored in them may give rise to the disease as noted above.

A Mirror of Hospital Practice.

A STRANGE PARASITE OF MAN.

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WITH A NOTE ON THE POLYCHÆTE IN THE HUMAN NASOPHARYNX.

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J. M. D., a Bengali Hindu male, blacksmith by caste, aged 42 years, and a resident of Calcutta, consulted me in the first week of November last (1926) for severe symptoms of coryza, the nasal discharge being very thick and tenacious and the headache very bad.

To alleviate the symptoms I gave him medicine and steam-inhalations for softening the mucus, but he had no nasal douche. On the morning of the 13th November I was hurriedly called in to see him. He had after much coughing and sneezing evacuated a worm-like creature from his nose, and this had been thrown on the floor, where it looked like a small mass of muco-purulent nasal secretion with a streak of blood along it. In due course however it uncoiled itself to a length of about one inch and began to move very slowly. At first sight I thought it to be a myriapod, as it had innumerable legs on both sides. When it was crawling straight the legs touched the floor, but when it moved in a serpentine way the legs were held up. As soon as it was put into a tumbler of water it began to swim about vigorously and gracefully, shewing clearly that its nature was aquatic. At its dorsum along the middle line what was taken to be a dorsal artery was noticeable.

Now, how could the creature have entered the nostril of the patient? On enquiry I obtained the following history. He had had the habit of bathing in the Ganges regularly for several years, but had discontinued it for a few months last year (1926), beginning again in October. He had never been to any part of the sea coast for pilgrimage or other purposes. But the river Hugli opposite Calcutta where he used to bathe is tidal and its water occasionally brackish. The man had often suffered from a discharge of thick and tenacious mucus from his nose which, however, was never very troublesome: it was

in November last when he consulted me that his suffering became acute. He was accustomed to eat river-fish but well-cooked, and he had never eaten sea-fish or any vegetable growth of the river or sea.

The worm after discharge lived for about 24 hours in water containing nasal discharges. After its death the body extended to double its original length showing the extensible ringed appearance of the body. What had looked like legs were on close examination found to be in reality paddle-like false feet which carried bunches of bristles at their ends and also there were bristles on the annulations of the body. On consulting my books I found that according to the classification of Mr. H. A. Baylis, M.A., D.Sc., F.Z.S., it belonged to the class Chætopoda and order Polychæta. I showed the animal to Dr. C. Strickland, Professor of Medical Entomology, School of Tropical Medicine and Hygiene, Calcutta, who also identified it to be a Polychæta.

So far as I am aware, the polychætes live in sea-water and their occurrence in the human body has never before been recorded. In this case the infection took place possibly from a cocoon which had been carried up the river by the tidal bore and had escaped the fish and other aquatic animals that might have devoured it. It cannot be ascertained exactly how long the cocoon had remained in the nostril of the patient and how long it took to develop into a worm. The total period of suffering of the patient was 6 days and as soon as the worm had passed out of the nostril, the symptoms disappeared. On microscopic examination the mucus adherent to the worm showed no ovum or any abnormality.

The creature has been preserved in the Entomological Department of the Calcutta School of Tropical Medicine.

NOTE ON THE POLYCHÆTE LIVING IN THE HUMAN NASOPHARYNX.

By Dr. C. A. STRICKLAND.

THE position that the Polychætes hold in the scheme of nature may be briefly referred to. They belong to the primary natural group or *phylum* the *Articulata* (Lankester) which comprise the creatures with at least some pretension to the possession of jointed appendages (called parapodia): these being used for the procuring of food or for locomotion. The members of this phylum are classified as the three subphyla, the rotifers (microscopic pond-animalcules), the annelids ('segmented-worms'), and the arthropods (insects, etc.) and it is to the annelid subphylum that the polychætes belong, just as do the earthworms and leeches. It is natural then that Dr. Biswas in view of this community of structure

of annelids with Arthropods, thought at first he was dealing with a 'myriapod.'*

The annelids, as far as man is concerned, except for the leeches which, as is well known, are parasitic in habit, have been usually regarded as being no worse and no better than the gentle earthworm. It is only when we come to the subphylum of arthropods (the insects, mites, scorpions, centipedes, etc.) that the fun for man really begins.

The case therefore mentioned in the above paper of a polychæte infesting man is very interesting, as it appears to be the only one on record of a non-blood sucking annelid, on one of its lawful occasions, having had anything to do directly with man's health and happiness.

It must be pointed out; however, that although polychætes have never apparently caused offence to man or even other vertebrates such as fish, they are prone to parasitism and commensalism, numerous observations of these phenomena having been made relative to the lower animals such as starfish, molluscs, crabs or even other polychætes. *Vide* St. Joseph (1888).

Further, Benham in the *Cambridge Natural History* points out that the Polychætes are as a rule very adaptable to changes in their environment, such as the salinity of the water in which they may find themselves. Their habitat of election is, however usually the sea, and most of the species are not found where streams of fresh water enter it.

A few, however, have been found in drinkable water, perhaps a chance habitus, shewing their adaptability. The specimen now being considered must indeed have been adaptable to have found its way, as it is assumed it did, from the sea into the Ganges, surviving that journey, and then into a man's nasopharynx, surviving there for a week without having the benefit even of the soothing fountains, so Dr. Biswas informs me, of nasal douches of salines.

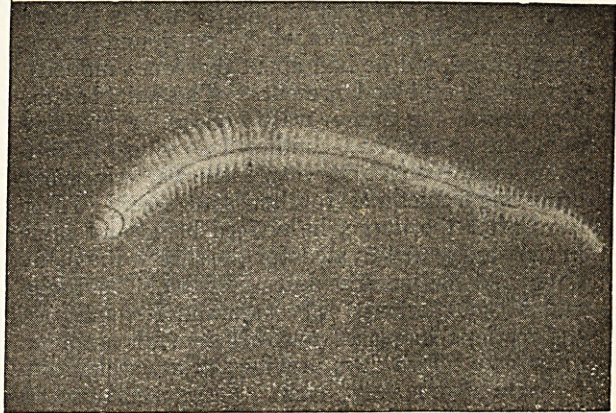
There may of course have been some method in its madness for the Polychætes as a class have a habit of burrowing or living in tubes of mud, and it may perhaps be surmised that when it saw the patient's nostrils it may have thought that here was a haven of rest such as it had been used to. Sad disillusionment.

It is very difficult to understand, however, how a creature nearly two inches long could have entered into a man's nasopharynx at all without his putting up a tremendous struggle for the mastery. It may of course have entered as an egg, or larva, but against this hypothesis is the fact that polychætes are carnivorous or vegetarian creatures and it is

unlikely that this specimen entering in the so-called trochosphere stage could have derived enough nourishment from its host's nasopharynx to enable it to grow up. Dr. Biswas says that his patient was not accustomed to eating river footstuff, so this possible route of entry is excluded.

Major Sewell, I.M.S., the Director of the Indian Museum, Calcutta, kindly informs me that the specimen is one of the genus *Nereis*, subgenus *Neanthes*. A photograph of the creature is here given.

It had reached the heteronereid stage, that is, it had undergone a certain amount of metamorphosis coincident with attaining sexual maturity. It is, it may be noted, interesting that



metamorphosis however slight should thus manifest itself in such a lowly relation of the insects, while not appearing in the intervening forms such as Peripatus or Diplopods. These Heteronereids are mostly free swimmers, while the trochospheres, or larvæ, are crawlers on the seabed, another point in favour of the hypothesis that it was not as an immature form that the creature entered the man's nasopharynx, but as a full grown Heteronereid, (difficult as it is to believe it).

The female Heteronereids sometimes cover themselves with a gelatinous secretion into which are passed the eggs in an orderly manner: she swims about and the eggs become fertilised by the free living sperms. The appearance that the creature had on being discharged from the nose, viz., that of a mass of mucopurulent material may have been due to that state.

I may conclude by saying that the moral to be drawn from the case is that polychætes should be looked for in all cases of acute coryza; and nasal saline douches withheld until "polychætositis" is excluded so that the symptoms should thereby be not perhaps aggravated.

We owe our thanks to Dr. D. N. Roy, Assistant Professor of Medical Entomology for assistance in connection with the above paper.

* — a name which in itself implies some community of structure, for it is given to an unnatural combination of Diplopods (millipedes) and Chilopods (centipedes).