CYSTICERCOSIS is a result of the encystment of the larvae of Taenia solium or Taenia saginata in the tissues of different kinds of animals. Usually man harbors the adult taenia, but under certain conditions he may become the intermediary host, harboring the larvae.

Taenia saginata is as common as Taenia solium. The predominance of one or the other type of parasite in human infestations is related chiefly to the kind of food ingested. Thus there is a higher rate of infestation by Taenia solium in Germany where pork is eaten mainly, and by Taenia saginata in those countries where beef is the common meat. In Chile there are more Taenia saginata cases in the cities, whereas Taenia solium cases are more frequent among the rural population. Nevertheless, Cysticercus bovis is extremely rare and there is doubt that it has ever been observed in man. The literature records only one case. Actually, then, human cysticercosis may be said to be due exclusively to Taenia solium.

The life cycle of the parasite is well known. It is granted that once embryonic eggs reach the stomach through ingestion of contaminated food or drink, auto-infection through dirty hands, or possibly regurgitation in an individual harboring an adult taenia, these are digested and the embryo, being freed, proceeds to bore its way through the intestinal wall and thus enters the portal or the lymphatic system, thence reaching the general circulation.

Although it is not the purpose of our work, let us point out some interesting facts. Cysticercus cellulosae shows a great preference for the central nervous system and its coverings. Its hepatic or pulmonary localization is rare. On the other hand, the hydatid, which enters the circulation in the same way, localizes itself usually in the liver and frequently in pulmonary tissues. It is rarely found in the nervous system.

Two observations throw some light on this question of preferences for certain tissues. (1) We have observed cysticerci of the nervous system associated with localizations in the skin. The subcutaneous cysticerci were small and appeared and disappeared in from 15 to 25 days. Death of the larva was confirmed by histological examination. (2) In the brain itself we have

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been able to observe, especially in cases where the fourth ventricle and posterior fossa were involved, numerous dead cysticerci whose destruction was histologically confirmed.

This has led us to think that the human organism may produce special substances that destroy the cysticerci. It is conceivable that the amount of these substances might vary in different tissues, thus explaining the more frequent invasion of the eye and brain. This possibility is being investigated at the Institute.

**LOCALIZATION OF CYSTICERCII**

A brief historical résumé may be given. Trelices and Lazarte\(^{11}\) cite Dressel (1877) who found that in 87 cases of cisticercosis the brain was affected in 72 (82 per cent); Stiles (1906) who in 155 cases found cysticerci in the brain in 117 (75 per cent); and Vosgien (1911) who reported that in 807 cases the brain was affected in 330 (40 per cent). The highest percentage of the figures above, therefore, correspond to localization in the central nervous system.

Krause\(^{7}\) reported that Küchenmeister in 88 cases of brain cysticercosis found the meninges involved in 49, the cortex in 59, and the ventricles in 18. When the ventricular system was invaded the fourth ventricle was most often affected. Only in 19 cases were cysticerci seen deep in the white matter.

Localization in the ventricles is very frequent. Sato,\(^{10}\) for instance, in 128 cases of brain cysticercosis found 48 examples (38 per cent), 22 of which were cysts of the fourth ventricle.

At the Instituto Central de Neurocirugía we have had, during a period of three and a half years, 25 cases of brain cysticercosis in a total of 202 intracranial tumours. This gives an idea of the practical importance of this condition. As will be shown later, the percentage of localization in the posterior fossa is very high.

**DIAGNOSIS OF CYSTICERCOSIS OF THE BRAIN**

The purpose of this paper is to throw some light on the diagnosis of this important medical problem. The diagnosis of cisticercosis is difficult. The clinical picture is variable and obscure. Trelices and Lazarte,\(^{11}\) Henneberg\(^{6}\) and Lopez Albo\(^{8}\) have given excellent descriptions. In spite of their complexity, the signs and symptoms found constitute one of the bases of the diagnosis. Certain biological procedures yield valuable data in cisticercosis of the brain but in most instances they are of little use in arriving at the correct diagnosis. Recent publications mention this problem and Hare\(^{5}\) says: "Premortem diagnosis is often difficult; the condition may be revealed only at autopsy." This is quite explainable because of the scarcity of this affection in the United States.

The X-ray has been useful. All the publications that we have been able to consult, when referring to X-ray diagnosis, take into account the images formed by the calcified cysticerci. Thus Henneberg describes small clear images, numerous, rounded and homogeneous. The tumours, he states, if