STUDY REPORTS

1. Title: The Pathology of Opisthorchis vierrini infection.

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BACKGROUND

Reports of human infection by the liver fluke Opisthorchis viverrini in Thailand have appeared in the literature since 1911.[1] The first comprehensive study was carried out by Sadun, who found that the fluke is largely confined to northeast Thailand, where the incidence of infection is high (55% in Udorn Province,)[2] Wykoff, at SEATO Medical Research Laboratory, investigated both the life cycle of the parasite[3] and the clinical manifestations of the disease.[4] The work reported here is an autopsy study on the livers and extrahepatic biliary tracts of patients infected with O. viverrini.

OBJECTIVE

To describe the gross and microscopic pathology of human opisthorchiasis and to draw inferences regarding pathogenesis, ie. the mechanisms by which the liver reacts to the fluke.

DESCRIPTION

Livers (with attached extrahepatic biliary tract) are obtained from autopsies at Udorn Province Hospital. Both infected and control patients are studied. After gross examination, the biliary tract is injected with a radiopaque medium (barium sulfate in water) and the liver is fixed by perfusion with 10% formalin via the portal vein. X–rays are taken of the whole liver, the liver is sliced horizontally at 1–2 cm intervals, and the slices are X–rayed. In the films of the liver slices there is no superimposition of bile ducts, and these films serve as maps for the dissection of the intrahepatic ducts. Microscopic sections of these ducts are taken and labeled so as the correlate specifically with deformities noted in the cholangiograms. In addition, the intra–and extrahepatic bile ducts and the hepatic parenchyma are examined microscopically.

PROGRESS

Ten livers have been injected and are currently being examined by the methods described above. The cholangiograms show focal constrictions of medium-sized ducts, with dilated segments proximal to the constrictions. Microscopically, the reaction is remarkably bland. The flukes are surrounded by a mild eosinophilic infiltrate, and there is pericholangial fibrosis, which appears to correlate with the constrictions seen on X–ray.

SUMMARY

Livers obtained at autopsy from patients infected with O. viverrini show focal constrictions of medium-sized bile ducts and a mild inflammatory reaction consisting of an eosinophilic infiltrate around the flukes and pericholangial fibrosis.

REFERENCES

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4. _____.: Clinical Manifestations of Opisthorchis Viverrini Infections in Thailand. Am. J. Trop. Med. Hyg. 15:914-8, 1966.

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