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MYELOPATHY IN CIRRHOSIS

By C. E. ROBINSON, M.D., F.R.C.P.(C)[1] and
ANDRE ANZARUT, M.D., D.C.H., F.R.C.P.(C)[2]

[1] *G. F. Strong Rehabilitation Centre, Canada and* [2] *Department of Neurology, St Paul's Hospital, Vancouver, B.C., Canada*

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Introduction

ENCEPHALOMYELOPATHY and myelopathy have been reported rarely in association with cirrhosis and/or portacaval shunt. There has been minimal pathological material among the reported cases. This report outlines another case with clinical findings of spinal cord disease associated with portacaval shunt for portal hypertension and cirrhosis.

Case Report

A 37-year-old North American Indian was admitted to the G. F. Strong Rehabilitation Centre on 26 May 1976 because of spastic tetraparesis. He had a long history of alcoholic abuse and in 1973 was diagnosed as having liver cirrhosis and portal hypertension. Because of repeated bleeding from oesophageal varices he underwent a portacaval shunt and revascularisation of the liver in 1973.

Apparently he continued to drink excessively following surgery. Early in 1974 he began to complain of weakness in the extremities but especially in the legs. On admission to St Paul's Hospital in October 1975 he had difficulty walking due to a spastic gait. He had clinical jaundice, hepatomegaly and some pedal oedema.

He was seen in consultation (A. A.) and was found to have spastic tetraparesis but no sensory impairment. Cervical myelogram, brain scan and cerebral arteriograms were negative and a diagnosis was made of myelopathy secondary to cirrhosis and portacaval shunt.

On 21 November 1975 he had bilateral adductor tenotomies done to improve his gait. On 1 December 1975 he had a left tympanoplasty performed for a previously perforated drum. Following this he developed hepatic precoma which responded to reduced protein intake, oral neomycin and intravenous glucose.

Following return home he had several episodes of pre-coma because of either too much protein or alcohol. On admission to the Rehabilitation Centre signs of chronic liver disease were noted, including hepatomegaly, telangiectasia, asterixis, scleral icterus and fetor hepaticus.

Laboratory investigation on admission included the following results: Hgb. 11·8 g; R.b.c. 3·7 million; Hematocrit 33·9 per cent; M.C.V. 91 u^3; M.C.H. 31·8 ung; MCHC 34·7 per cent; Prothrombin time 14·7 sec. (62 per cent); Total bilirubin 2·5 mg/dl; Direct bilirubin 1·7 mg/dl; Total protein 6·4 g/dl; Albumin 3·1 g/dl; Globulin 3·3 g/dl; Sodium 136, Potassium 2·9, Chloride 100, Bicarbonate 25 mmol/l, B.U.N. 12 mg/dl, S.G.O.T. 21 U/l; Serum $B_{12} > 1000$ picogm/ml; Serum folate 8·9 mgm/ml; Serum iron 155 ug/dl; T.I.B.C. 276 ug/dl; Saturation 56 per cent.

Despite lower extremity weakness and spasticity he was able to walk in parallel bars or with a walker, wearing below knee braces. His rehabilitation programme was interrupted on a few occasions by dietary protein excess and once during a weekend leave by alcohol indulgence. It is likely that his future course will be dependent largely on his

liver function. However, it is also probable that he will not be a functional walker and will depend on a wheelchair for locomotion.

Discussion

Zieve, Mendelson and Goepfert (1960) reported two cases of 'shunt encephalomyelopathy' with neuropathologic data in one case. Pant, Rebeiz and Richardson (1968) reported two cases of 'spastic paraparesis following portacaval shunts' with neuropathological findings, and referred to 18 other cases in the literature.

Krishnaswami, Radhakrishnan and John (1969) reported two cases of 'myelopathy in cirrhosis', only one of which had clinical signs of spinal cord involvement.

Although portal cirrhosis is very common and encephalopathy due to liver failure is well known the case presented here may draw attention to the seldom recognised myelopathy that may occur. Some of the reported cases became evident after portacaval shunt surgery was done but it seems likely that late stage cirrhosis may lead to spinal cord degeneration.

Résumé

Il y a peu de cas cliniques rapportés de cordon médullaire associés avec la cirrhosis du foie et/ou la chirurge de porto-caval shunt, et même moins de cas avec de découvertes pathologiques.

Ceci est le rapport d'un cas d'un jeune homme qui va bien avec ce syndrome clinique.

Zusammenfassung

Es sind wenige klinische Fälle gemeldet worden mit Rückenmark Krankheit, verbunden mit Leber Cirrhosis and/oder 'Porto-Caval Shunt Chirugie' und sogar weniger Fälle mit pathologischen Befund.

Dies ist der Fall von einen jungen Mann mit solchen klinischen Syndrom.

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