

Intrahepatic splenic tissue

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Abstract

Intrahepatic splenic tissue is uncommon being reported to date in three humans and one pig. This report is of a 54 year old man with chronic asthma who died from acute bronchial asthma. Twenty years previously he had undergone a splenectomy (the spleen was histologically normal). Necropsy revealed a well defined, smooth bordered, bilobed red mass on the left hepatic lobe; one lobe projected outwards the other was embedded in the liver. Histologically the mass was splenic tissue. This case of intrahepatic splenic tissue differing from the three human cases reported previously in that there was a common capsule beneath which splenic pulp directly abuts on hepatic tissue. This suggests that this case is more probably one of hyperplasia of congenitally ectopic splenic tissue following splenectomy rather than limited splenosis after implantation onto the serosal surface of splenic tissue released by trauma. Splenic ectopia should be considered in the differential diagnosis of hepatic lesions detected post-splenectomy and the liver should be considered as a possible site of residual splenic tissue if splenic function returns following splenectomy.

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Ectopic splenic tissue was found in 47 of 250 (19%) consecutive necropsies.¹ While most common near the spleen it has been detected in serous cavities from the scrotum to the pericardium. There are, however, only four reports of intrahepatic splenic tissue, three in humans²⁻⁴ and one in a pig.⁵ We report a further human case of intrahepatic splenic tissue and compare it with the previously reported cases, we also review its possible origins and discuss its potential practical significance.

Case report

A 54 year old man with a long history of asthma died due to acute bronchial asthma. A histologically normal 220 g spleen had been removed 20 years previously following surgical trauma to the spleen during vagotomy, pyloroplasty, and gastric ulcer repair.

At necropsy on the anterior surface of the left hepatic lobe there was a well defined, smooth bordered, bilobed dark red mass, 2 cm in its greatest dimension. One lobe projected outwards and the other was embedded in the liver.

Histologically the mass was splenic tissue. Although the white pulp was not prominent the



Figure 1 Intrahepatic splenic tissue showing red pulp and poorly developed white pulp. Original magnification $\times 50$.

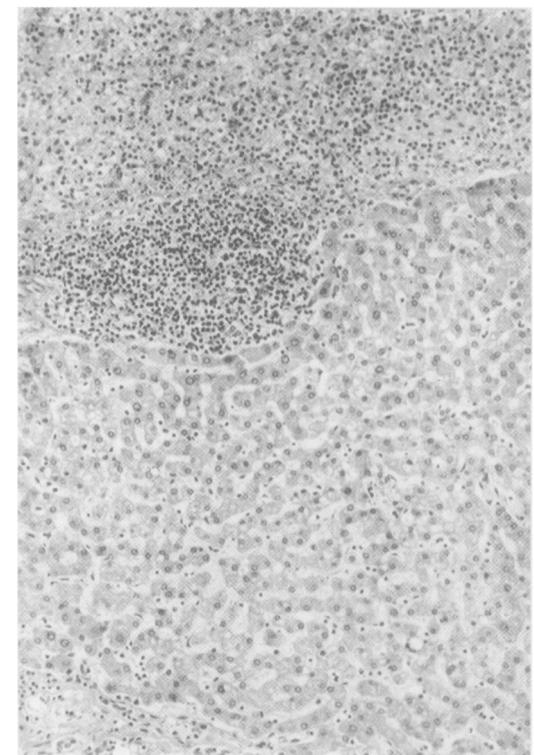


Figure 2 Splenic tissue (top) abutting on liver tissue (bottom) without an intervening fibrous capsule. Original magnification $\times 100$.

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appearance was within the normal range (fig 1). A common capsule enclosed the liver and splenic tissue. The hepatic and splenic tissue abutted directly on each other (fig 2) except immediately beneath the capsule where a short projection of fibrous tissue lay between them. Other than a little periportal lymphocytic infiltration adjacent to the splenic tissue the liver was histologically normal. No other splenic tissue was identified.

Discussion

The three previous human cases of intrahepatic splenic tissue²⁻⁴ followed splenectomy; however, they differ from the present case—in the previous human cases and in the pig a fibrous capsule separated the liver from the splenic tissue, whereas in the present case the two components abutted directly.

This may reflect different origins of the splenic tissue. If the splenic tissue lies outside the liver capsule it is more likely that it represents a form of limited splenosis—that is, implantation and growth of fragments of spleen produced by trauma.⁶ The common capsule in the present case suggests that it is more likely that the ectopic splenic tissue was present in the liver at an early stage of development and that this congenitally ectopic splenic tissue underwent hyperplasia following splenectomy.

An alternative possibility is that the splenic tissue reached a subcapsular location in the liver via the blood or lymphatic vessels following trauma. Although it has been claimed that the white pulp is less well developed in splenosis others have found it impossible to distinguish splenosis from congenital ectopia histologically.⁶ In the present case although the white pulp was not prominent the amount present was within the limits expected in normal splenic tissue.

Intrahepatic splenic tissue could have two important implications. First, it should be considered in the differential diagnosis of hepatic tumours. Second, if splenic function returns following therapeutic splenectomy for haematological disease, such as hereditary spherocytosis, the liver should be considered as a possible site of residual splenic tissue.

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