Retractile mesenteritis, characterised by shortening of the mesentery with fibrosis and lymphocyte infiltration, has been suggested as a condition similar to mesenteric lipodystrophy, and some authors would regard it as an end stage of mesenteric lipodystrophy.⁹ An association between mesenteric lipodystrophy and retroperitoneal fibrosis has also been suggested and obstruction of the vena cava due to retroperitoneal extension of mesenteric lipodystrophy has been reported.^{4,10}

In pelvic lipomatosis there is a gross increase in perivesical and perirectal adipose tissue but there is no foamy macrophage infiltration and the process does not extend above the pelvic brim. Although there may be inflammatory changes in the serosa in Whipple's disease, the mesenteric nodules represent enlarged lymph nodes which contain numerous periodic acid Schiff positive macrophages and bacilli and there is no sign of fat necrosis.

The three cases that we have presented demonstrate the clinical spectrum of mesenteric lipodystrophy. Case 1 presented with an acute abdomen and in cases 2 and 3, despite extensive investigations, the diagnosis was made at necropsy. Only histological examination of the mesenteric masses indicated the diagnosis.

The clinical course of mesenteric lipodystrophy is usually benign with a favourable outcome; no treatment is necessary.⁴ In the mesocolon the disease is clinicopathologically more advanced and progressive and may require surgical treatment, including a colectomy.⁶

It is important for pathologists and their clinical colleagues to be aware of mesenteric lipodystrophy as a cause of a mass in the abdomen when symptoms of anorexia, nausea, vomiting, diarrhoea and constipation are present.

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Multinucleated stromal giant cells of the colonic lamina propria in ulcerative colitis

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Abstract

Multinucleated stromal giant cells were seen in the colonic mucosa in biopsy specimens from two patients with long-standing quiescent ulcerative colitis. Similar cells have been described at other sites associated with chronic inflammation, including the lower female genital tract, bladder and anus. The immunophenotype of the cells in the colonic mucosa suggested that they had originated from fibroblasts rather than histiocytes, in common with cells seen at other sites of inflammation.

These examples lend support to the concept of there being a reactive morphological change possibly related to interaction with mast cells. These multinucleated giant cells are distinct from histiocytic giant cells and should not be confused with them.

So-called (atypical) multinucleated stromal giant cells have been described in a variety of sites including the lower female genital tract, bladder, anus, skin, breast and nose.¹⁻⁴ When numerous they have been confused with a diagnosis of sarcoma or pseudosarcomatous carcinoma. Their association with polyps, chronic inflammation and changes after radiation has suggested that these are reactive cells and studies suggest an origin from the indigenous stromal cells.¹⁻⁴ An interaction between stromal cells and mast cells has been suggested as being crucial to the induction of this morphological change.¹

Case reports

CASE 1

A 62 year old woman with an 18 year history of ulcerative proctitis that had been controlled by salazopyrine had a review colonoscopy at which the mucosa looked normal. Biopsy specimens were taken to assess disease activity and exclude dysplasia.

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CASE 2

A 72 year old woman with a 20 year history of ulcerative colitis affecting the rectum and sigmoid colon that had been controlled with salazopyrine had a review colonoscopy at which the mucosa was described as normal. Biopsy specimens were taken to exclude dysplasia.

Pathological findings

In both cases the biopsy specimens showed large bowel mucosa with a mild increase in chronic inflammatory cells but minimal glandular distortion and no mucus depletion, ulceration, polyps or dysplasia. In both cases low power examination showed small numbers of bizarre multinucleated cells scattered throughout the lamina propria (fig 1A). The cells were irregular or stellate in outline and contained between three and 15 round, uniform nuclei arranged in a rosette or grape-like manner (figs 1B and 1C). There was no evidence of associated foreign material, crypt abscesses, or granulomata. Toluidine blue staining showed large numbers of mast cells in the lamina propria in both cases. Sufficient material was available from case 2 to perform immunohistochemical staining which showed these cells to be vimentin positive but CAM 5.2, α -smooth muscle actin, desmin, CD68 (a macrophage marker), leucocyte common antigen, S100 and factor VIII negative.

Figure 1A Multinucleated stromal giant cells scattered within the colonic lamina propria (arrowheads). Figure B (top left) Multinucleated stromal giant cell with "rosette" arrangement of nuclei. Figure C (top right) Multinucleated stromal giant cell with a "grape-like" arrangement of nuclei.

Discussion

Multinucleated giant cells may be seen in colonic mucosa in association with granulomata or in isolation in Crohn's disease, infectious colitis, ruptured crypt abscesses and foreign body reactions.⁵ These are epithelioid in appearance with abundant eosinophilic cytoplasm and are CD68 positive, indicating a histiocytic origin. Bizarre vimentin positive stromal cells, some of which are multinucleated, have also been reported in the colon in association with ulcers and inflammatory polyps.⁶ The cells seen in the mucosal tissue in the two cases reported here have an irregular or stellate outline with nuclei arranged in a rosette or grape-like manner and have relatively little cytoplasm. They are not associated with granulomata, foreign body material, infection, crypt, abscesses, ulceration or inflammatory polyps. They are vimentin positive but CD68 negative, suggesting a mesenchymal rather than histiocytic origin.

Morphologically and immunophenotypically similar giant cells have been described at other sites in association with a variety of reactive conditions.⁴ We believe the colonic giant cells described here are of this type and are linked to the underlying chronic inflammatory process, particularly the presence of increased numbers of mast cells, a phenomenon which has been reported in association with ulcerative colitis.⁷ Increased numbers of mast cells have been noted in association with stromal giant cells from other sites.¹

These findings further support the concept of multinucleated stromal giant cells being morphological reactive variants of indigenous stromal cells, possibly related to an interaction with mast cells.

A distinction should be made between these stromal giant cells and those of histiocytic origin as the former are probably of no importance diagnostically or clinically.

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