Vacuolated Reed Sternberg Cells Resembling Histiocytes on Marrow Aspirate

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Bone marrow aspirate and biopsy is a standard investigation done in cases of Hodgkin lymphoma as a part of staging. It is very rare to find an RS cell in stained aspirate smears as often they are either not sought properly or are often overlooked [1]. Thus the positivity rate on biopsy sections is much higher as compared to aspirate smears. One more reason for this difference may be the presence of fibrosis which is often present in these patients with marrow involvement [2]. We describe here a very unusual

morphology of RS cells which was confused with histiocytes on Giemsa stained aspirate smears.

A 12-year-old boy presented to haematology OPD after receiving six cycles of ABVD based chemotherapy from outside. The patient had B symptoms with stage 3 disease. Review of lymph node slides was consistent with Classical Hodgkin Lymphoma-Mixed Cellularity type. Bone marrow aspirate and trephine biopsy was done to rule out involvement.

Aspirate smears were cellular showing presence of large cells with abundant basophilic vacuolated cytoplasm, round to cleaved nucleus with open chromatin and 0–1 nucleoli. Morphologically many cells appeared like histiocytes (Figs. 1, 2). Marrow biopsy showed granuloma formation with presence many large mononuclear cells which were positive for CD30 on immunohistochemistry (Fig. 2d).

Disclaimer The identity of the patient is not disclosed here in this case.

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Fig. 1 Highly pleomorphic RS cells with round to cleaved nuclei. Occasional cell had blastoid morphology (**d**). **a** $\times 100$ magnification (Jenner Giemsa stain), **b**, **d** $\times 1000$ magnification (Jenner Giemsa stain), **c** $\times 400$ magnification (Jenner Giemsa stain)

Fig. 2 Granuloma formation with presence of epithelioid cells (arrows, **a** $\times 400$ magnification), mononuclear RS cells (arrow, **b** $\times 400$ magnification), occasional polylobated RS cell (arrow, **c** $\times 400$ magnification). Stain for CD30 shows positivity on biopsy section (**d**)

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Compliance with Ethical Standards

Conflict of interest The authors state that there is no conflict of interest present.

Ethical Approval The identity of the patient is not disclosed in this article.

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