

Myelolipoma of Spleen: An Unusual Presentation

Malini Goswami

Department of pathology, Rajiv Gandhi Cancer Institute And Research Centre, New Delhi, India

Keywords: *Myelolipoma, Splenic*

Dear Sir,

A 56 year old male presented with pallor, multiple episodes of vomiting and abdominal swelling. He had a past history of jaundice and also received 2 units of blood earlier. His blood parameters at presentation were: haemoglobin -8.5g/dl, MCV - 76.4 fl, MCH- 24pg, MCHC-31.5% and RDW-CV-23.6%, TLC-8200/cumm.

CT scan revealed a well-defined retroperitoneal mass with areas of internal fat density-likely neoplastic in the left paraaortic region extending from just below the left renal vessels till L4 vertebra. The mass was abutting and displacing the left kidney, aorta, mesenteric vessels, small bowel loops with no sign of obstruction.

Excision of the mass was performed and grossly it was a large well circumscribed mass measuring 15 x 10 x 8 cm, cut section of which exhibited grey red solid appearance and firm consistency. Histopathological examination (figure 1) revealed an encapsulated mass, the parenchyma of which seemed to be partitioned by fibrous trabeculae. Focal lymphoid follicles with central hyalinised blood vessels were seen around the trabeculae. The entire morphology was reminiscent of spleen, however almost the entire splenic parenchyma was overrun and replaced by trilineal haematopoiesis with normal morphology and mature adipocytes. A diagnosis of myelolipoma of spleen was rendered. The patient was followed up later and is doing well.

Myelolipoma (myelo- marrow; lipo-meaning of, or pertaining to, fat; -oma, meaning tumor or mass) is a rare benign tumor composed of mature lipomatous and hematopoietic tissue which was first described in the adrenal gland by Gierke in 1905.^[1] They are mostly encountered in persons older than 40 years.^[2] Small tumors tend to be asymptomatic and often are detected

incidentally, but rarely these tumors can grow to huge sizes causing pressure effects, retroperitoneal haemorrhage and abdominal swelling.^[3]

They occur most commonly in the adrenal gland with rare incidences in extra adrenal locations including lung, liver, retroperitoneum, mediastinum and testes.^[4] Splenic myelolipomas are more commonly seen in other species, but rarely in humans with only 7 cases reported so far.^[4]

They must be differentiated from extramedullary hematopoiesis, myeloid sarcoma, lipoma and well differentiated liposarcoma. While EMH is a more diffuse process with less chance of mass formation, myelolipoma may also sometimes involve the spleen diffusely and completely overrun the parenchyma.^[5] However presence of entrapped mature adipose tissue is the defining feature favouring myelolipoma over EMH or myeloid sarcoma. Since adipose tissue is a defining component of myelolipomas, well differentiated liposarcomas and lipomas are included in the differential diagnosis however absence of a haemic component helps in eliminating them.^[5] Surgery is curative and prognosis is good.

Abbreviations and Symbols:

MCV: mean corpuscular volume

MCH: mean corpuscular haemoglobin

MCHC: mean corpuscular haemoglobin concentration

RDW-CV: red cell distribution width-coefficient of variation

TLC: total leucocyte count

CT: computed tomography

EMH: extramedullary hematopoiesis

L4: lumbar 4

Pg: picogram

Fl: femtolitre

Cumm: cubic milimetre

*Corresponding author:

Dr Malini Goswami, c/o Pranab Goswami, House number 11, Sundarpur, Bye lane 1(left), RG Barua road, Guwahati-781005, Assam, India

Phone: +91 9654488079, 9599875132

E-mail: malinig87@gmail.com



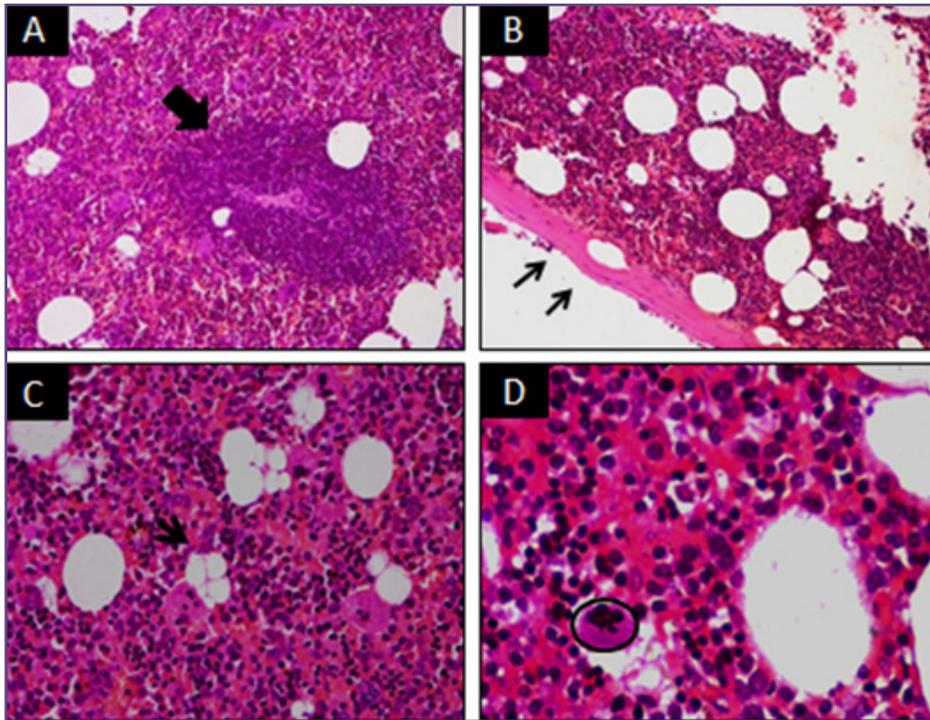


Fig. 1: A-Residual lymphoid follicle of white pulp of spleen (arrow)with hyalinised central vessel,H&E,100X. B-Thick capsule(double arrows)of the spleen and underlying tumor, H&E,100X. C- The tumor with its trilineage haematopoietic elements along with intervening adipose tissue(arrow), H&E,200X. D-Higher magnification of the tumor with trilineage haematopoietic elements (megakaryocyte marked by a circle) along with intervening adipose tissue,H&E,400X.

Acknowledgements

I would like to thank Dr.Anurag Mehta,who is the head of department,pathology for his encouragement and support.

Funding

None

Competing Interests

None Declared

References

1. Wood WG, Restivo TE, Axelsson KL, SvahnJD. Myelolipoma in the spleen: a rare discovery of extra-adrenal hematopoietic tissue, JSurg Case Rep 2013;3
2. Weiss & Goldblum. Benign lipomatous tumors In: Schmitt W, Black S, editors. Enzinger and Weiss's Soft Tissue Tumors.5th edition. China: Elsevier Inc; 2008.
3. Meyer A, Behrend M. Presentation and therapy of myelolipoma. Int J Urol 2005;12:239
4. Aguilera NS, Auerbach A. Extra-adrenal myelolipoma presenting in the spleen: A report of two cases.Human Pathology: Case Reports 2016;6:8-12.
5. Cina SJ, Gordon BM, Curry NS. Ectopic adrenal myelolipomapresenting as a splenic mass. Arch Pathol Lab Med 1995;119:561-3.