on the right side. The histopathological diagnosis was cystic dysplasia of the testis, but evaluation of the patient for other urogenital anomalies was not possible as the patient did not come for follow-up.

Today, the non-operative management of cystic dysplasia of the testis represents an effective alternative option in these patients and the primary benefit of this approach is the preservation of endocrine function and spermiogenic activity. The natural history of untreated cystic dysplasia of the testis and its effect on normal testicular tissue are, however, still unknown. Therefore, a long-term follow-up is recommended,³ along with evaluation for associated urological anomalies.

M L Bhat, Z Rasool

Department of Pathology, Government Medical College, Srinagar, Kashmir, India

S M Kadri

Regional Institute of Health and Family Welfare (RIHFW) DHS, Srinagar

N Wani

Department of Surgery, Shri Mahraja Hari Sirgh Hospital, Srinagar

G Hassan, D Mumtaz, W Qureshi

Department of Medicine, Government Medical College

B Shiekh

Department of Pathology, Government Medical College

R Dwivedi

VA Medical Center, Minneapolis, Minnesota, USA

Correspondence to: M L Bhat, Department of Pathology, Government Medical College, Srinagar, Kashmir, India; kadrism@sancharnet.in

doi: 10.1136/jcp.2005.032888

References

- 1 **Cimador M, Rosone G, Castagnetti M, et al.** Cystic dysplasia of rete testis associated with ipsilateral renal agenesis. *Case Rep Minerva Pediatr* 2003;**55**:175-9.
- 2 **Camassei FD, Francalanci P, Ferro F, et al.** Cystic dysplasia of the rete testis: report of two cases and review of the literature. *Pediatr Dev Pathol* 2002;**5**:206-10.
- 3 **Glantz L, Hansen K, Caldame A, et al.** Cystic dysplasia of the testis. *Hum Pathol* 1993;**24**:1142-5.
- 4 **Nistal M, Regadera J, Paniagua R.** Cystic dysplasia of the testis. Light and electron microscopic study of three cases. *Arch Pathol Lab Med* 1984;**108**:579-83.
- 5 **Rovellini P, Bianchi A, Bottanelli A, et al.** Cystic dysplasia of the testis: report of a case and review of the literature. *Arch Ital Urol Androl* 2001;**73**:193-8.

Plasma cell satellitism in plasma cell myeloma

Plasma cell satellitism around macrophages has been reported in a patient with plasma cell myeloma (multiple myeloma) and amyloidosis.¹ The formation of the rosettes was attributed to the secretion of amyloid by macrophages.¹⁻³ We report a case of plasma cell satellitism without associated amyloidosis. It is important to recognise this rare morphological finding to prevent confusion with other conditions, such as nucleated red blood cells clustering around macrophages or

Figure 1 (A, B) Plasma cells forming rosette-like structures around a centrally located macrophage.

metastatic tumours exhibiting rosette formation.

The investigation of a 63-year-old man with back pain showed hypercalcaemia, anaemia and high levels of immunoglobulin G, proved to be monoclonal by serum immunofixation. A bone survey showed lytic lesions throughout the shafts of the humeri and femurs. Bone marrow examination contained paucicellular aspirate smears, predominated by plasma cells with large eccentric nuclei and prominent nucleoli. Most of the plasma cells formed distinct rosettes, with tapered basophilic cytoplasmic projections directed towards a centrally located macrophage (fig 1). The hypercellular (70%) bone marrow core biopsy specimen contained 20% plasma cells as scattered cells and focal clusters, but no identifiable rosettes.

Immunohistochemistry for κ immunoglobulin light chains highlighted most of the plasma cells. CD68 immunostains showed a few scattered cells. No amyloid was seen with Congo red stain. Flow cytometric immunophenotypic studies of the aspirate consisted of a monotypic κ -restricted plasma cell population that was CD38, CD138 and CD56 positive, and CD45, CD20, CD25 and CD52 negative. Owing to poor response to chemotherapy, the patient underwent autologous stem cell transplantation. Bone marrow biopsy after 4 months showed 3% myeloma cells, without rosetting in the aspirate.

The mechanism mediating the communication between the myeloma cell and the macrophage is unknown. Previously, one case with plasma cell rosettes around macrophages in the bone marrow aspirate was reported in a patient with plasma cell myeloma and amyloidosis.¹ Clustering of plasma cells around macrophages has also been observed in vitro in myeloma cell cultures, in which amyloid was seen.^{2,3} In this case, the plasma cell satellitism in conjunction with the absence of clinical and morphological signs of amyloidosis suggests that the rosetting is not related to the production or processing of amyloid by macrophages as previously theorised.¹⁻³ Additionally, plasma cell rosetting without associated macrophages has also been reported, raising the possibility that macrophages may not be necessary for this interaction.^{4,5}

N D Dimov*, D L Zynger*, L C Peterson

McGaw Medical Centre of Northwestern University, Chicago, USA

Correspondence to: N D Dimov, Mc Gaw Medical Centre of North Western University, 251 E Huron Street, Feinberg 7 325B, Chicago, IL 60611, USA; n-dimov@md.northwestern.edu

doi: 10.1136/jcp.2005.034710

Accepted for publication 6 January 2006

*These authors contributed equally to this work.

Competing interests: None declared.

References

- 1 **Pillay TS, Sayers G, Bird AR, et al.** Plasmacytic reticulum cell satellitism in multiple myeloma associated with amyloidosis. *J Clin Pathol* 1992;**45**:623-4.
- 2 **Durie BGM, Persky BP, Soehnlen BJ, et al.** Amyloid production in human myeloma stem cell culture, with morphologic evidence of amyloid secretion by associated macrophages. *N Engl J Med* 1982;**307**:1689-92.
- 3 **Zucker-Franklin D, Frangione B.** Amyloid in myeloma stem cell culture. *N Engl J Med* 1983;**308**:1164-5.
- 4 **Wong KF, Chan JK, Chu YC.** Multiple myeloma with tadpolelike cells and rosette formation. *Am J Clin Pathol* 1992;**98**:630-2.
- 5 **O'Malley, DP.** A rosette by any other name. *Arch Pathol Lab Med* 2003;**128**:1053.

BOOK REVIEW

Phages: their role in bacterial pathogenesis and biotechnology

Edited by M K Waldor, D I Friedman, S L Adhya. Washington DC: Published by ASM Press, 2005, \$119-95 (hardcover), pp 468. ISBN 1-55581-307-0

Any book that contains the phrase "rolling global-scale orgy of bacteriophage sex" will grab my attention, but then again, I am a bacteriophage enthusiast. To be honest, I'm really only an amateur and this book is primarily for the professional enthusiast, and at \$120, it is likely to be read only by those who work with bacteriophages regularly. This is a shame, as it contains some fascinating material. Did you know, for instance, that, with a total population estimated at any one time to be 10^{31} , phages are the most numerous organisms on the planet? I didn't know until I read this book. Another amazing fact that had me firing off emails to my long-suffering colleagues was that if all 10^{31} of these phages were laid end to end, they