

Findings from a Hedgehog

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SIGNALMENT:

3-year-old African pigmy hedgehog

HISTORY AND CLINICAL FINDINGS:

History of anorexia, weakness, weight loss, behavioral change, ataxia, and cervical and abdominal masses. Skin mites were observed.

LABORATORY DATA:

Table 1

CBC	3/8 Pre-treatment	3/12 Post-treatment	Reference interval*	Units
Hct	36.7	31.9	36 +/- 7 (22-64)	%
Hgb	13.7	11.1	12 +/- 2.8 (7-21.1)	g/dl
Rbc	4.3	3.67	6 +/- 2 (3-16)	x10 ⁶ /µl
MCV	85.3	87	67 +/- 9 (41-94)	fl
MCHC	37.3	34.9	34 +/- 5 (17-48)	g/dl
Ptl	137	142	226 +/- 108 (60-347)	x103/µl
MPV	11.6	10	n/a	fl
WBC	85.4	2.0	11 +/- 6 (3-43)	x103/µl
Seg	(30%) 25.6	(11%) 0.220	5.1 +/- 5.2 (0.6-37.4)	x103/µl
Band	(9%) 7.7	(0%) 0	n/a	x103/µl
Lymph	(3%) 2.6	(32%) 0.6	4 +/- 2.2 (0.9-13.1)	x103/µl
Mono	(0%) 0	(6%) 0.1	0.3 +/- 0.3 (0-1.6)	x103/µl
Eos	(9%) 7.7	(17%) 0.3	1.2 +/- 0.9 (0-5.1)	x103/µl
Baso	(3%) 2.562	(2%) 0.04	0.4 +/- 0.3 (0-1.5)	x103/µl
Others	(46%) 39.284	(32%) 0.6	0	x103/µl
nRBC	2	3	n/a	/100 WBC

* Reference intervals are from "Exotic animal formulary", by Carpenter J.W., Elsevier 4th ed. 2012

CASE OUTCOME:

The clinical status of the animal continued to deteriorate with worsening of depression, anorexia and lethargy. The hedgehog died the day after the second CBC was performed and necropsy was performed. Histologic sections of bone marrow collected post mortem.

QUESTIONS:

What are the possible differentials and what features would you use to reach a definitive diagnosis?

What stains would you use to confirm the cell(s) of origin?

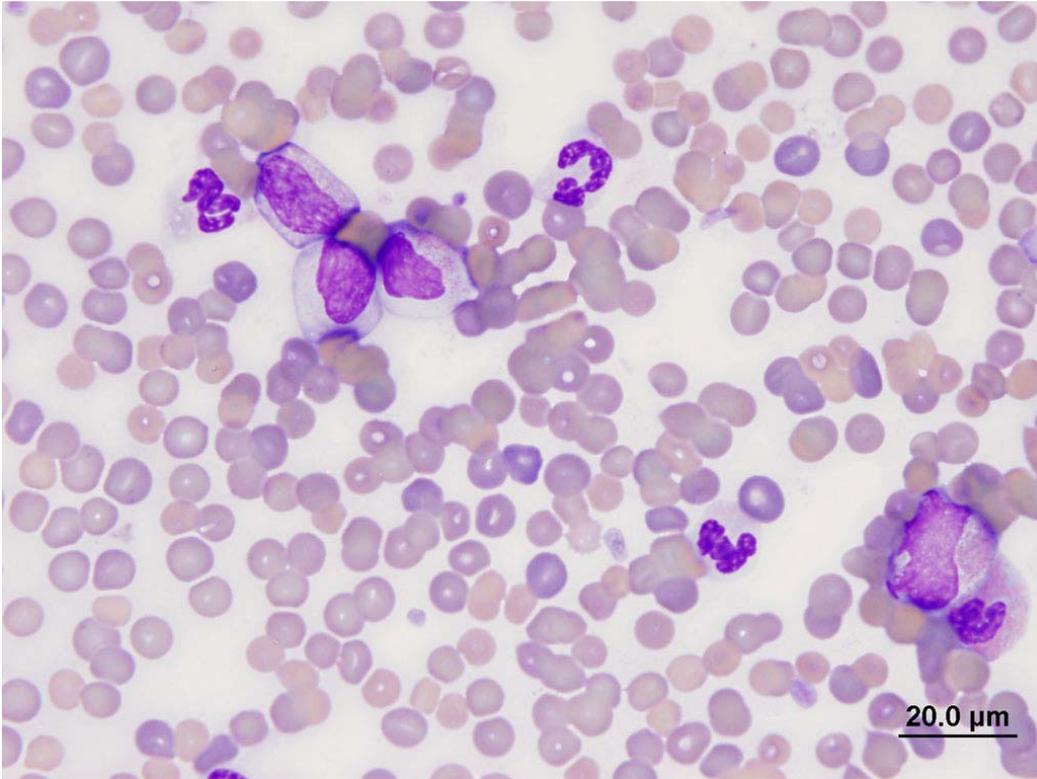


Figure 1
Peripheral blood from a hedgehog. Modified Romanowsky stain, Original magnification X1000

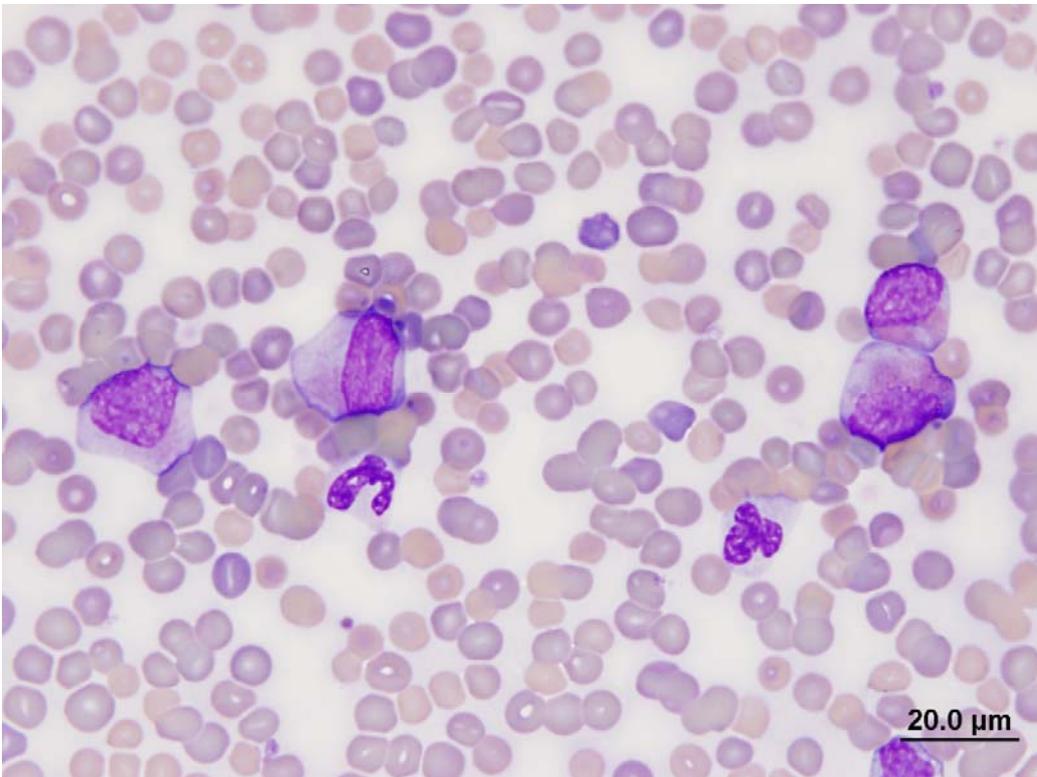


Figure 2
Peripheral blood from a hedgehog. Modified Romanowsky stain, Original magnification X1000

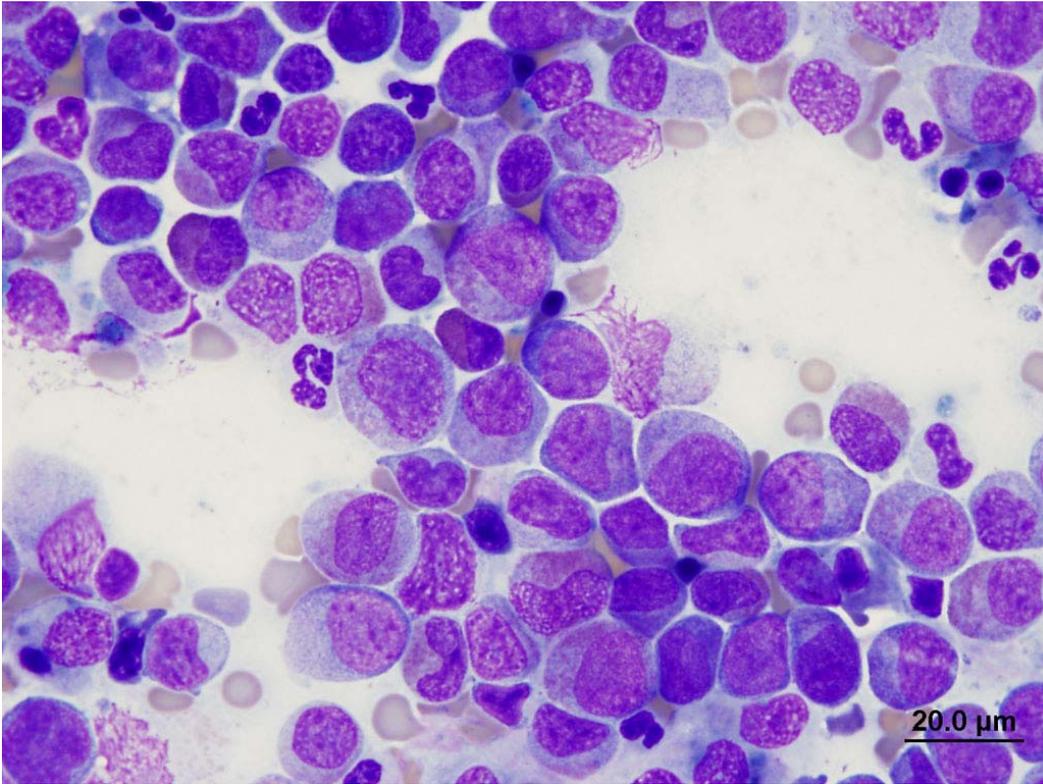


Figure 3
Bone marrow fine needle aspirate from a hedgehog. Modified Romanowsky stain, Original magnification X1000

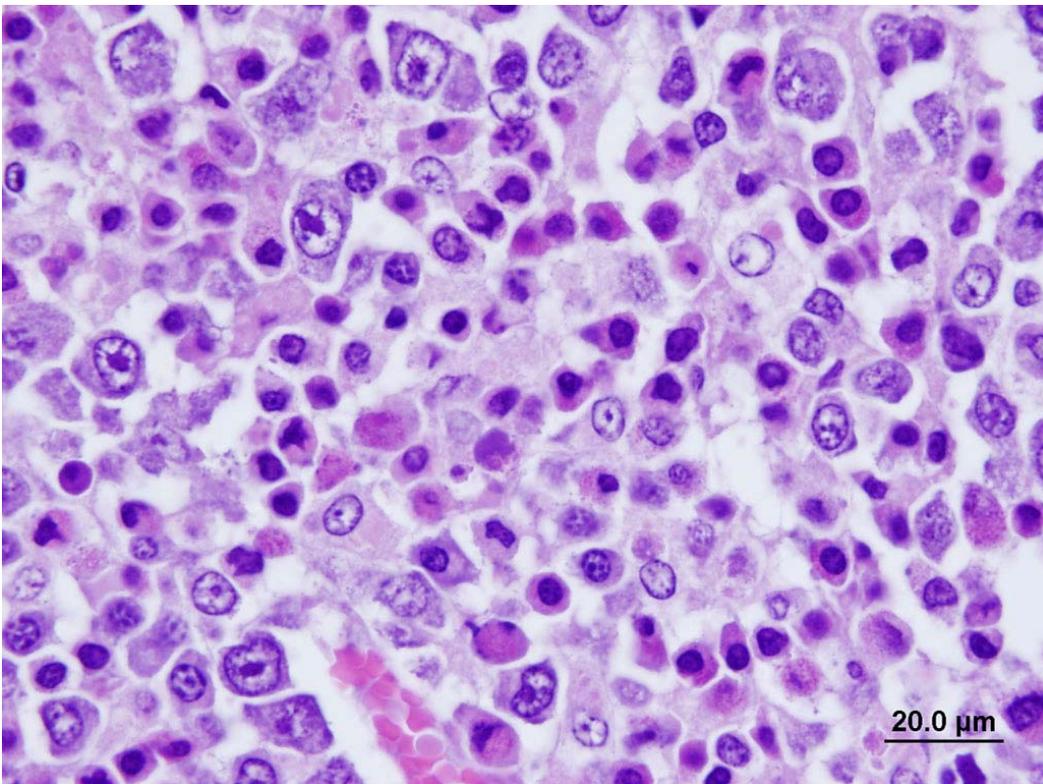


Figure 4
Histologic section of bone marrow from a hedgehog. Hematoxylin and eosin, Original magnification X1000