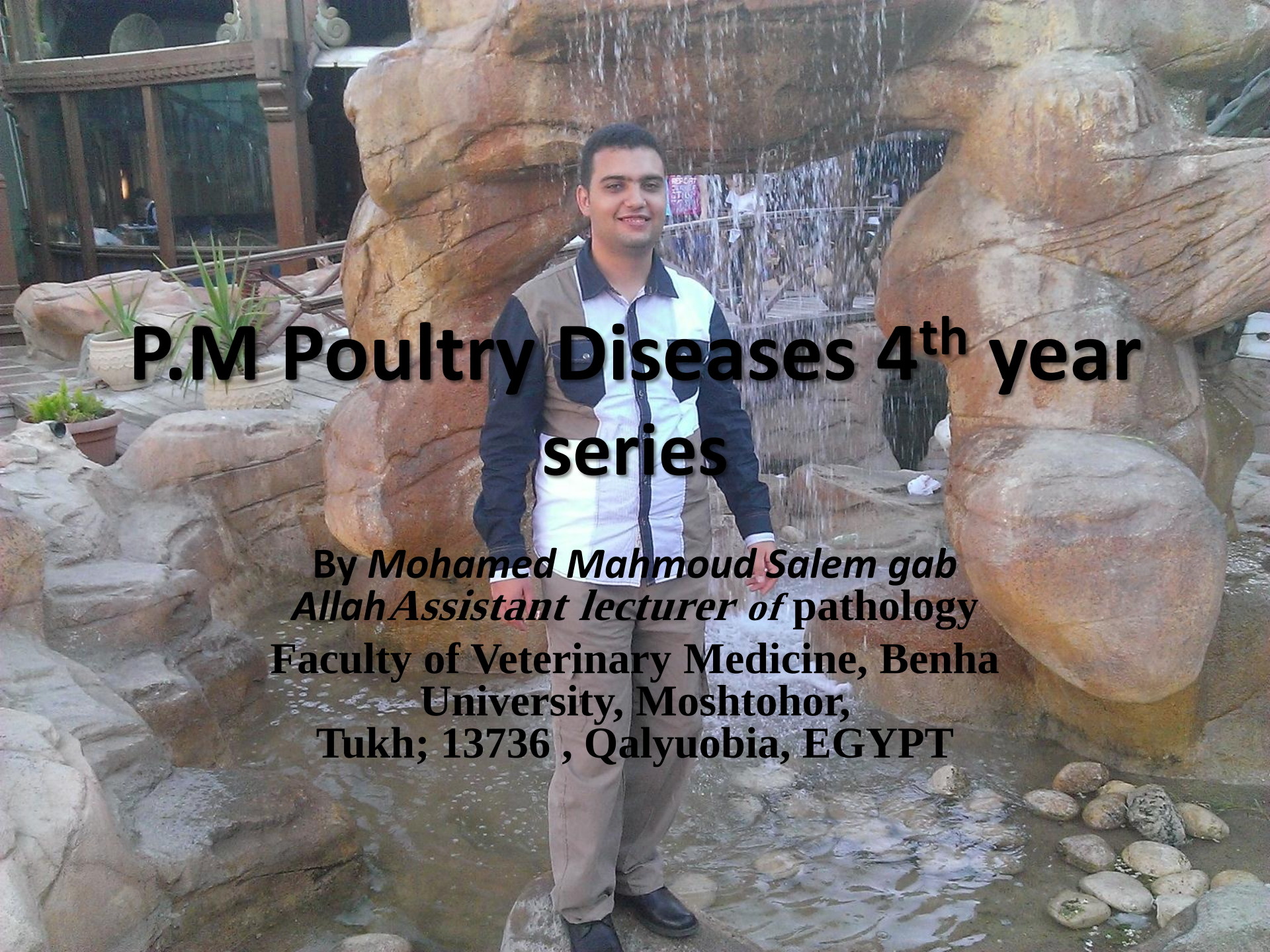

P.M Poultry Diseases 4th year series

By *Mohamed Mahmoud Salem gab Allah* *Assistant lecturer of* pathology
Faculty of Veterinary Medicine, Benha University, Moshtohor,
Tukh; 13736 , Qalyuobia, EGYPT

LEUKOSIS

LYMPHOID LEUKOSIS

LEUKOSIS

300. It is characterized by a gradual beginning, persistent low mortality in the flock and diffuse or focal neoplastic growths of lymphoblasts in viscera. The neoplastic changes begin always from the bursa of Fabricius, where various-sized lymphomas are detected (transverse section through neo plastically grown bursa - fixed preparation).

LEUKOSIS

301, 302. Clinically, pale comb and wattles, sometimes swelling of the abdomen because of the highly enlarged liver are observed. Diffuse or nodular neoplastic growths could be detected in many organs, but they are more common in the liver, the spleen, the kidneys, the heart and the ovary.

LEUKOSIS

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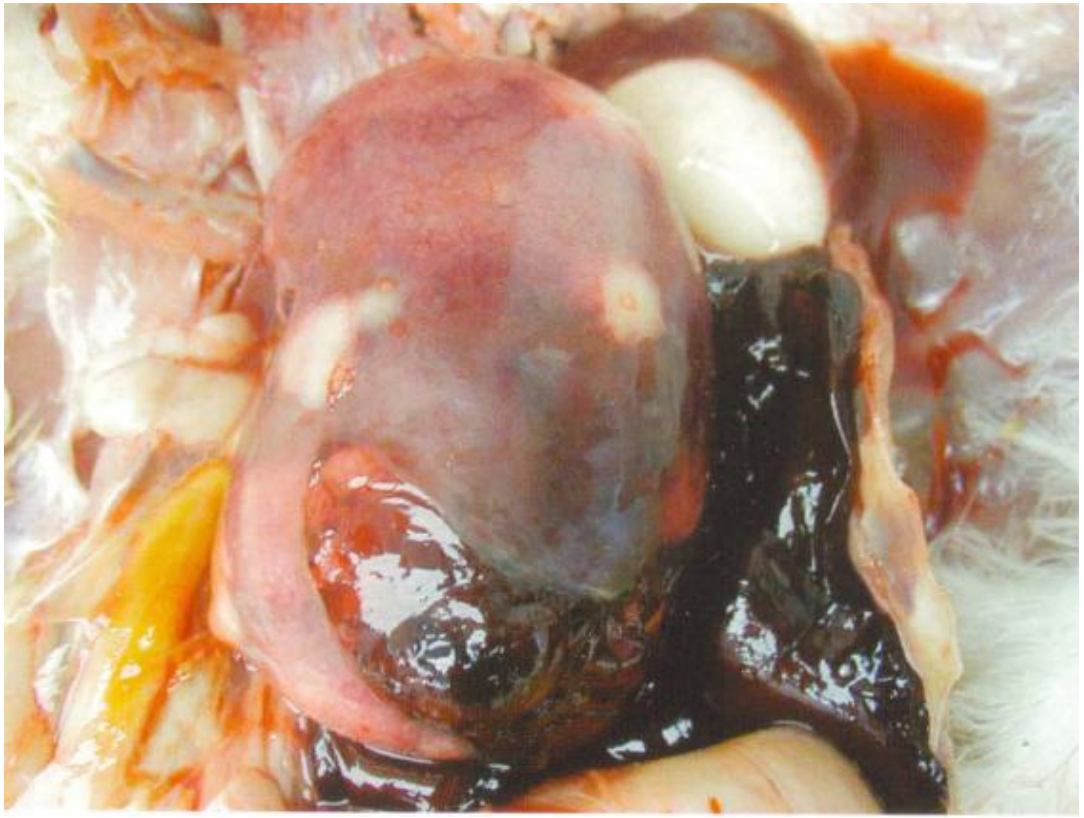
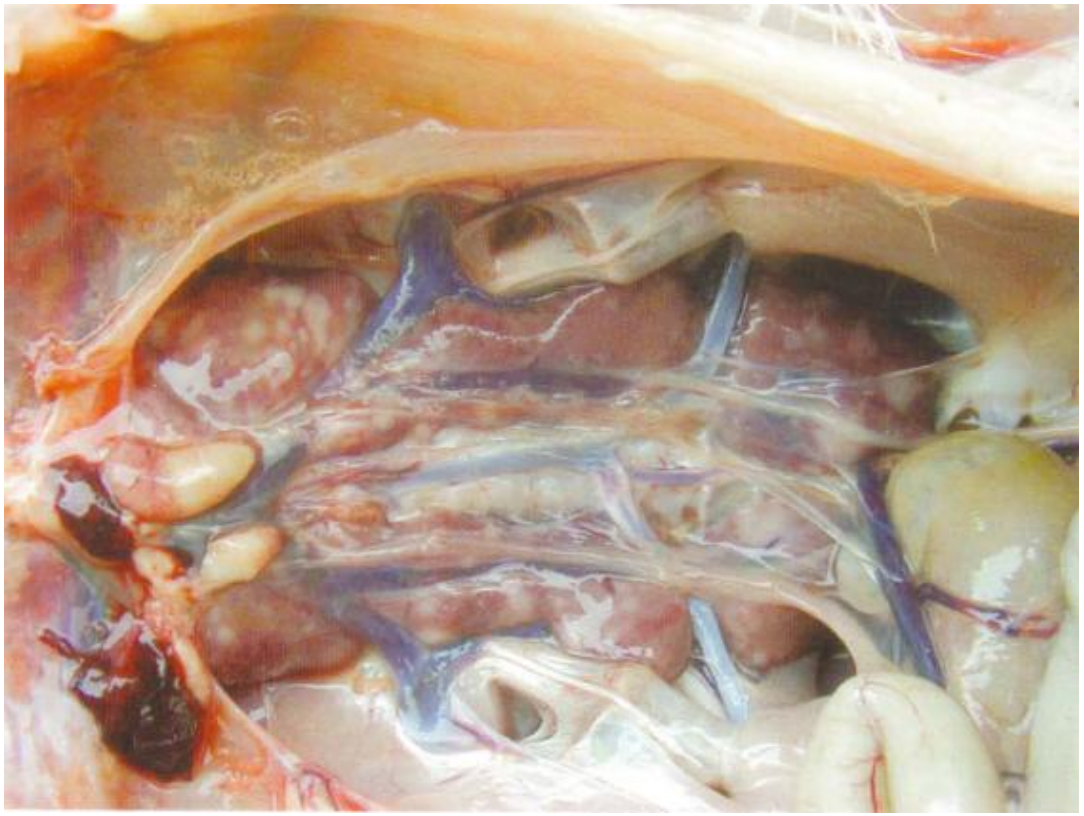
LEUKOSIS

303. Spontaneous rupture of the neoplastically grown spleen, leading to extensive loss of blood. LL is widely distributed worldwide in countries with developed industrial poultry breeding. It is usually observed in birds at the age of 16 weeks and older.



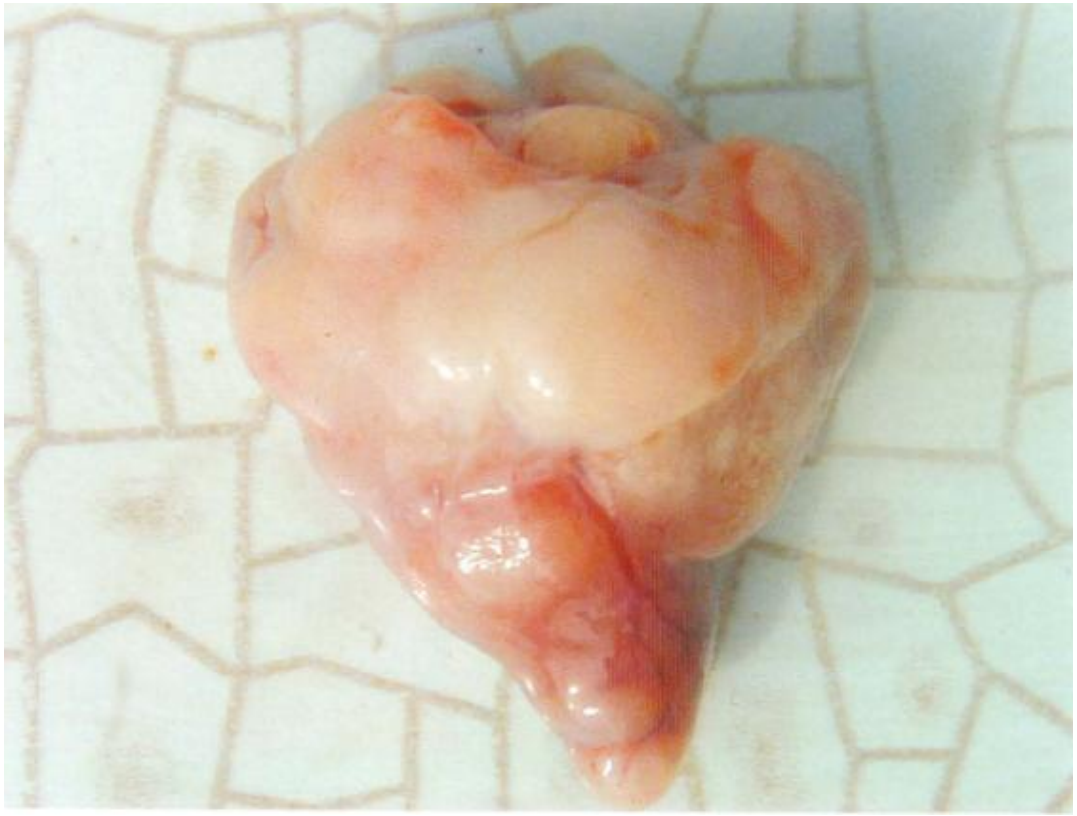
LEUKOSIS

304. Focal neoplastic lesions in kidneys. LL is caused by viruses of the *LIS* group classified in 10 subgroups: A, B, C, D, E, F, G, H, I and J. The viruses from subgroup A are most prevalent and most frequently associated with LL. Hens, rarely turkeys, pheasants and quails are susceptible.



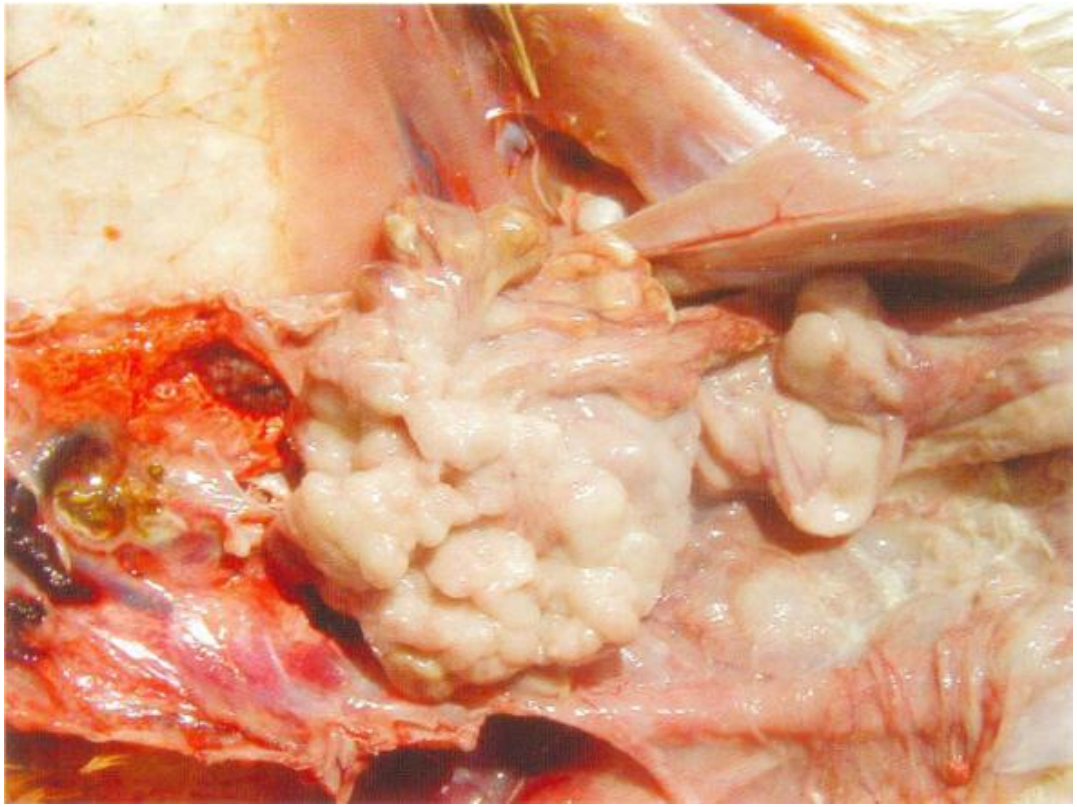
LEUKOSIS

305. Diffuse and focal tumour lesions in the heart. The replication of the virus occurs in albumin secreting glands of the oviduct. The transmission of the infection is performed vertically by egg albumin from one generation to another. The role of cocks is not important for the congenital infection of the progeny. They are only virus carriers and source of venereal infection for other birds.



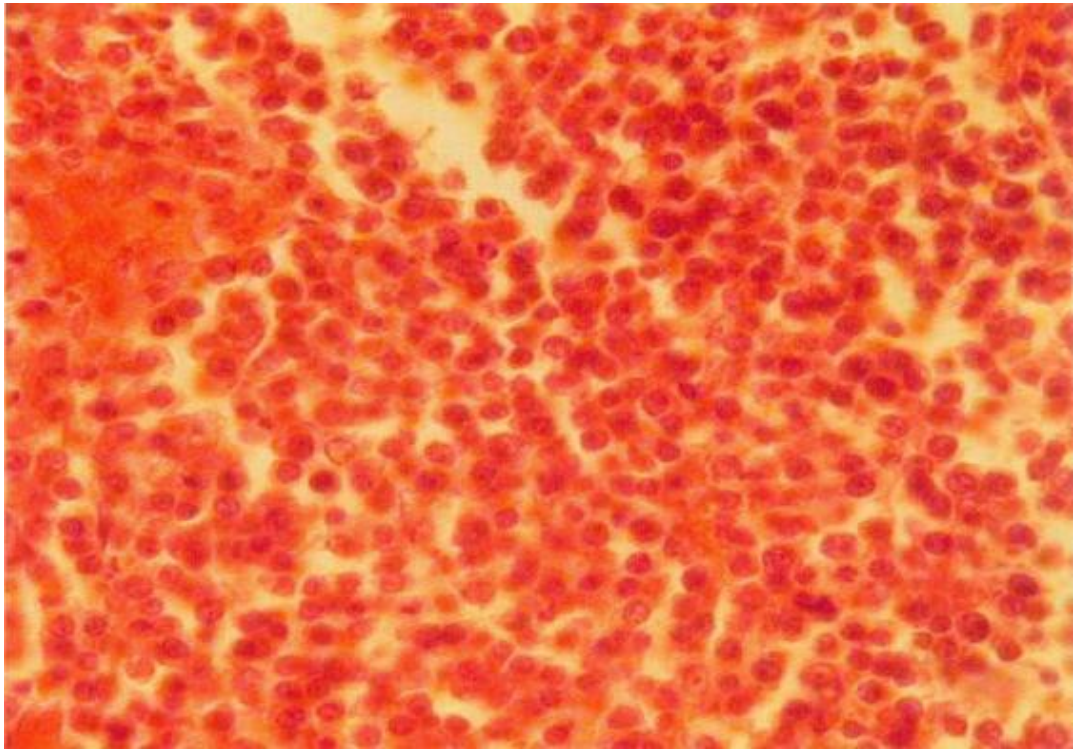
LEUKOSIS

306. Neoplastically transformed ovary in LL. In some instances, the horizontal infection is also possible but only in chickens in the first few days after hatching, usually via vaccines contaminated with ALSV. The lethal issues are observed for 56 months after the LL outbreak and amount to 5 - 15%.



LEUKOSIS

307, 308. Histologically, growth of single type lymphoblast cells with marked pyroninophilia is observed.



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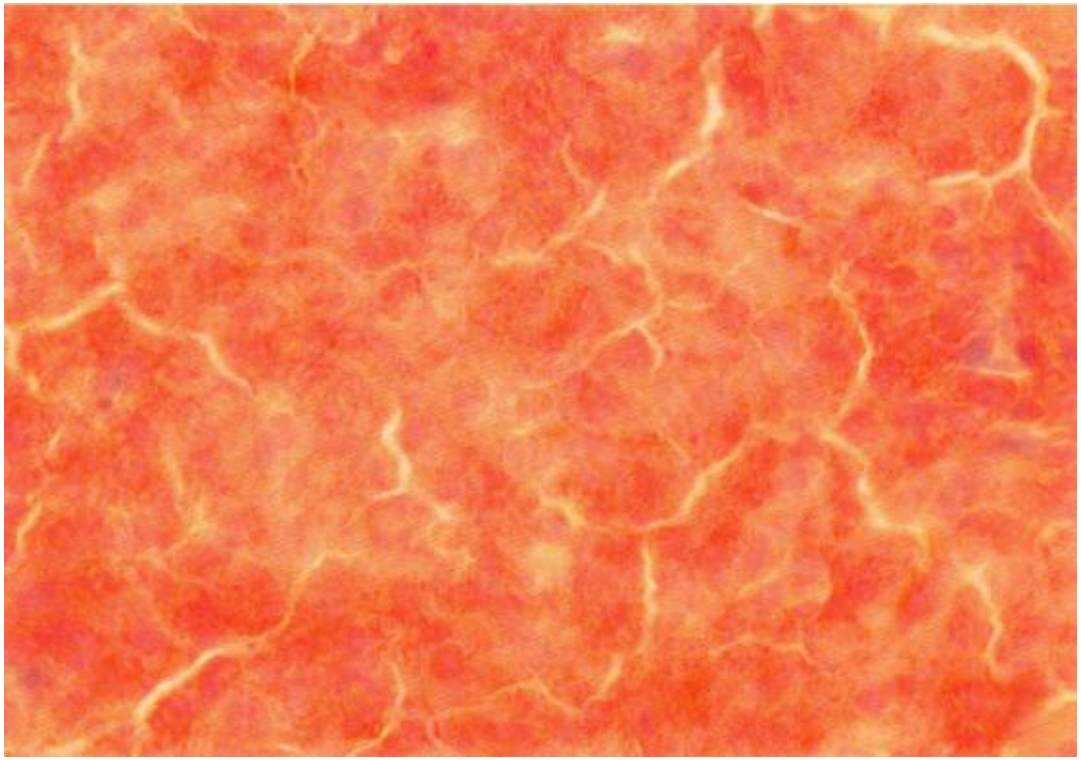
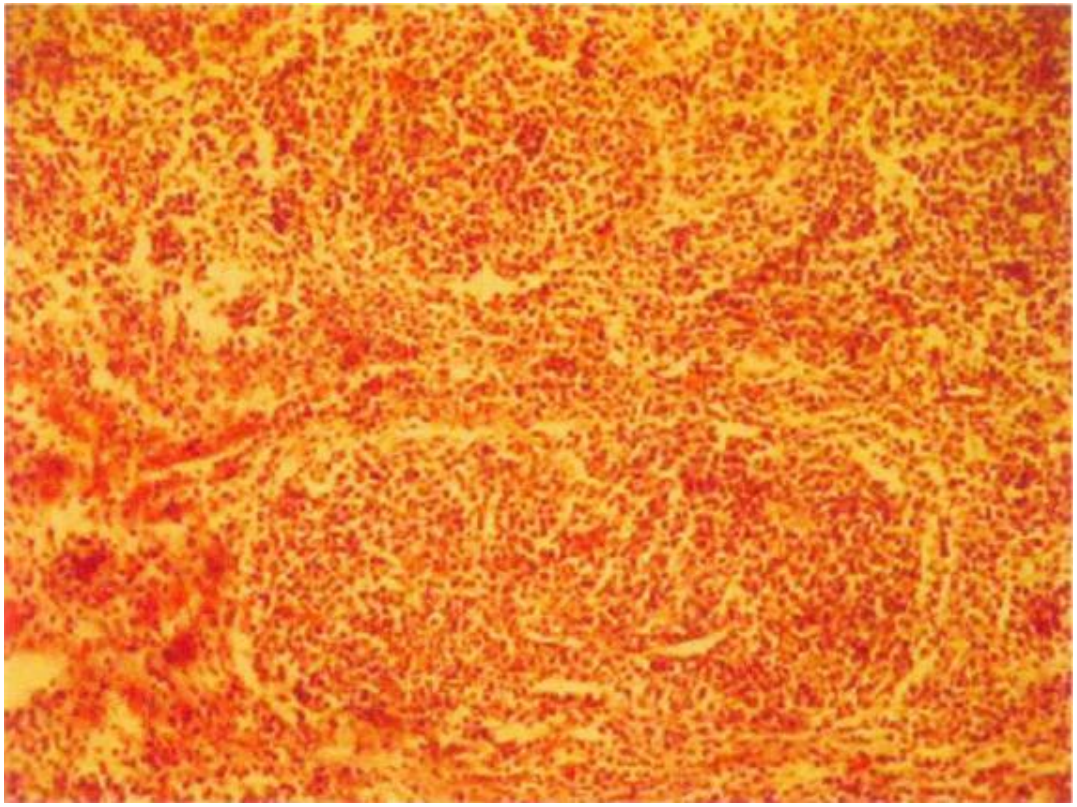


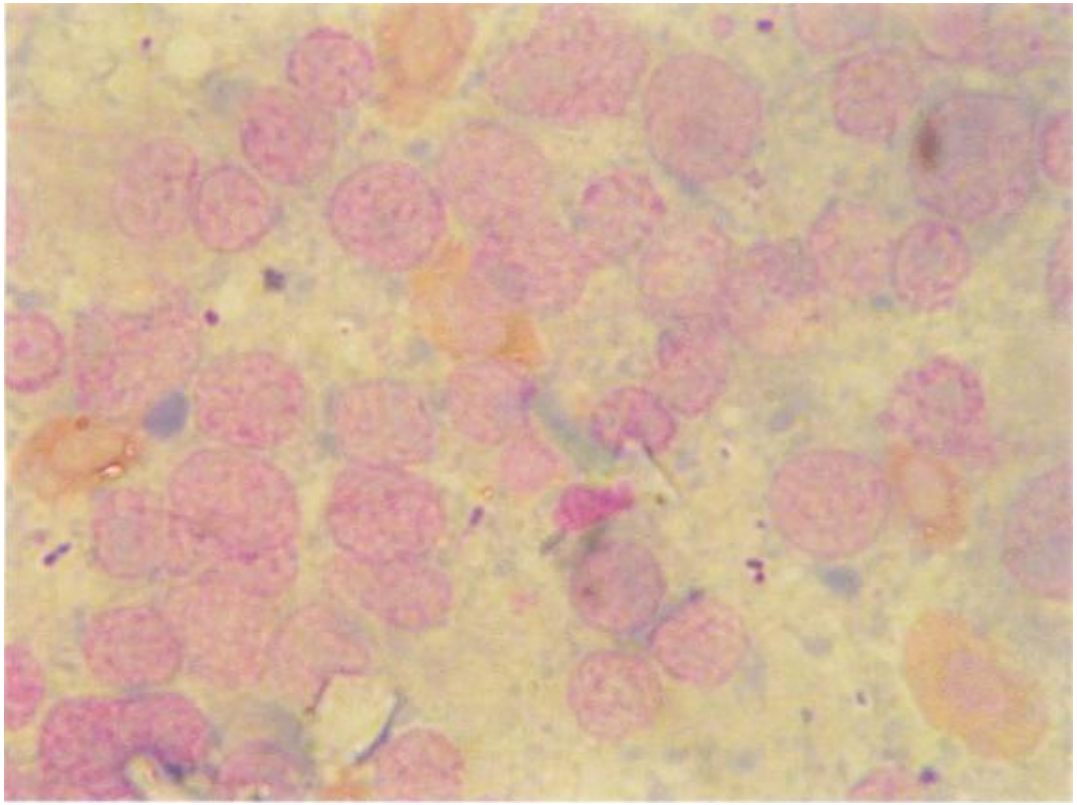
LEUKOSIS

309. In the bursa of Fabricius, a characteristic intrafollicular hyperplasia is observed.



LEUKOSIS

310. The picture of an imprint preparation from neoplastic lesions shows a layer of singletype lymphoblast cells. LL and MD are hard to be distinguished: in both, lymphoid tumours are present in the same visceral organs, the appearance at the same age is possible, and the visceral lesions could not be differentiated macroscopically, except in a careful microscopic examination by an experienced pathologist.

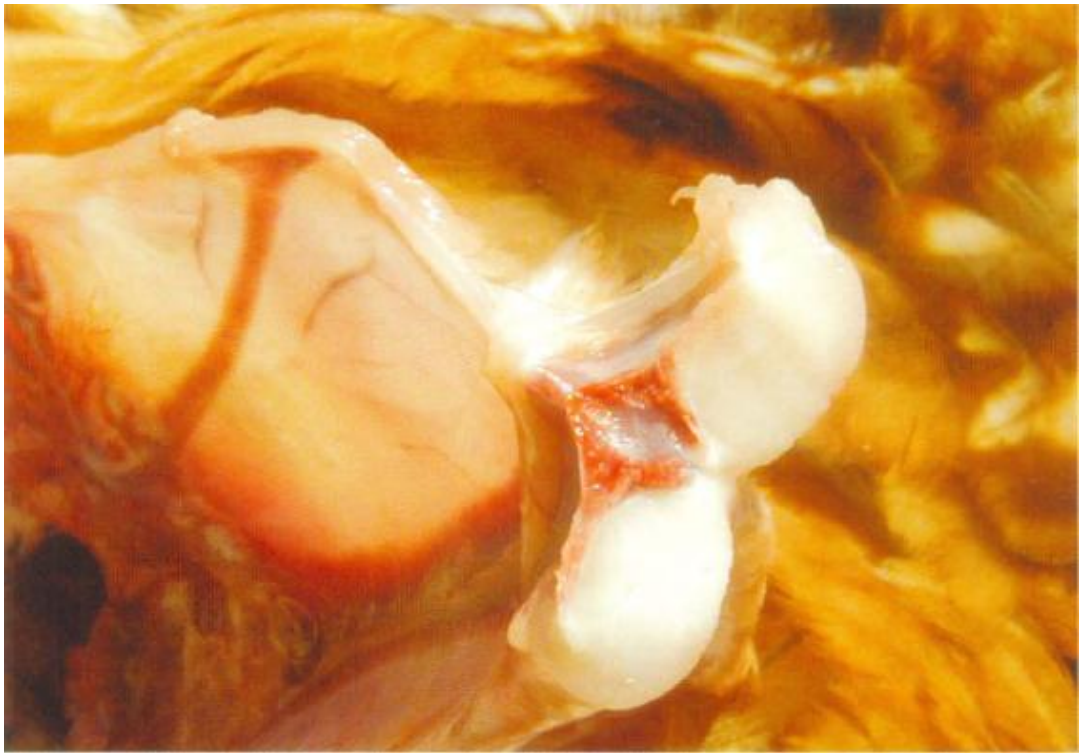


LEUKOSIS

MYELOCYTOMATOSIS

LEUKOSIS

311, 312. Myelocytomatosis (MC) is characterized by proliferation of immature cells from the granulocyte order myelocytes and promyelocytes. It has an aleukaemic character. Occurs independently or in association with a number of other neoplastic diseases. Atypical morphological forms are possible. The MC tumours (myelocytomas) are frequently encountered on the bone surface near the periosteum, the adjacent cartilage or bone-cartilage ends of the ribs.



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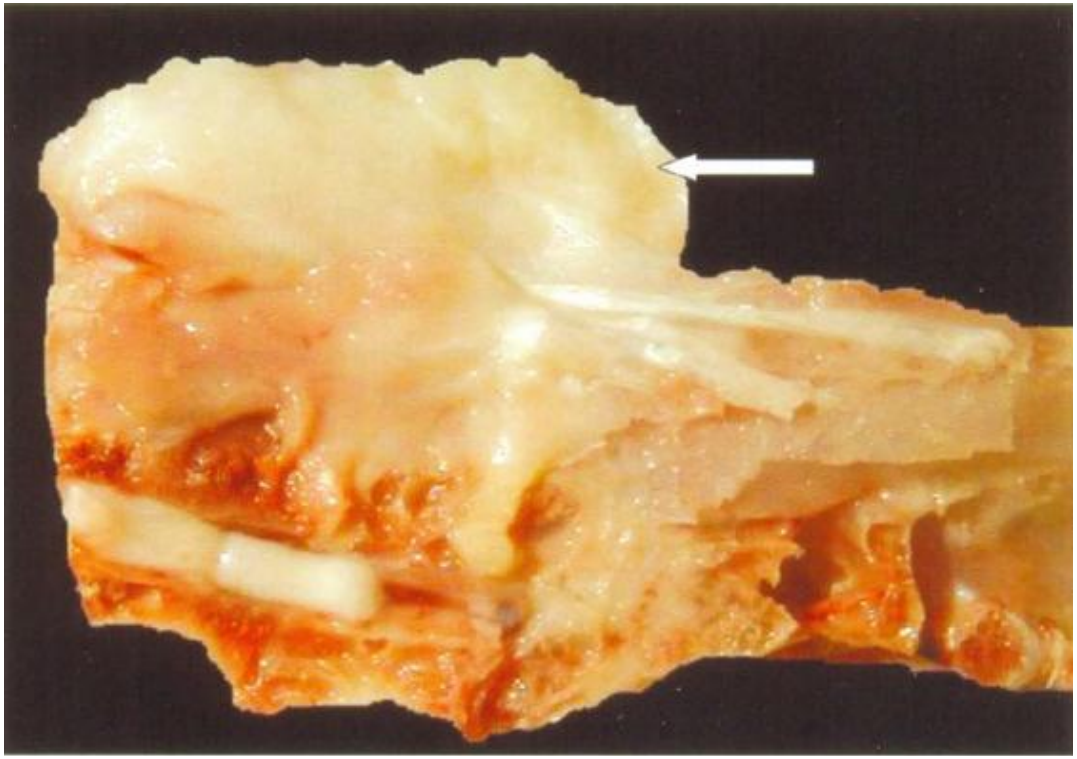
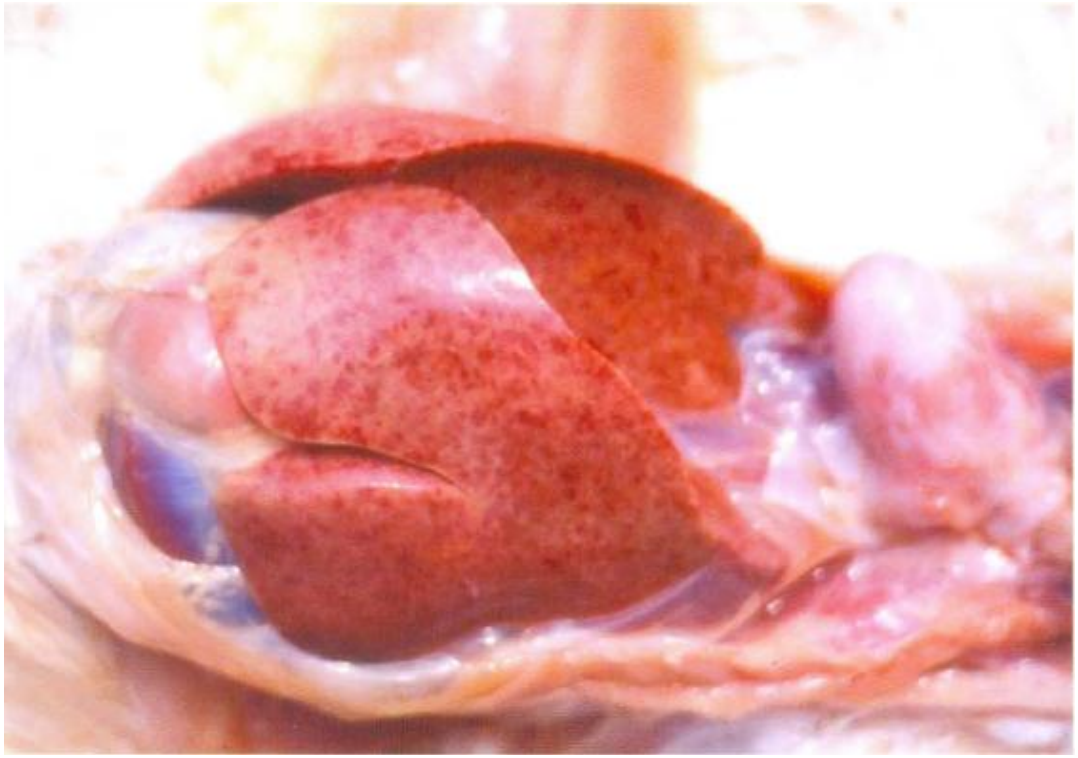


LEUKOSIS

313, 314. MC is caused by viral strains of ALSVs from subgroups A, Band J (MC29, MC31, CMII, OK10, HRPS 103, and ADOL H(1). It is encountered relatively infrequently. Its occurrence is sporadic or enzootic. Susceptible birds are hens, pheasants, guinea hens and quails. In most cases, the liver is enlarged, thick and mottled with dark red spots or fat-like nodules.



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LEUKOSIS

315. Sclerotic changes in the liver are possible because of regression of neoplastic lesions.

LEUKOSIS

316. The spleen is usually enlarged, but sometimes, could be atrophied

LEUKOSIS

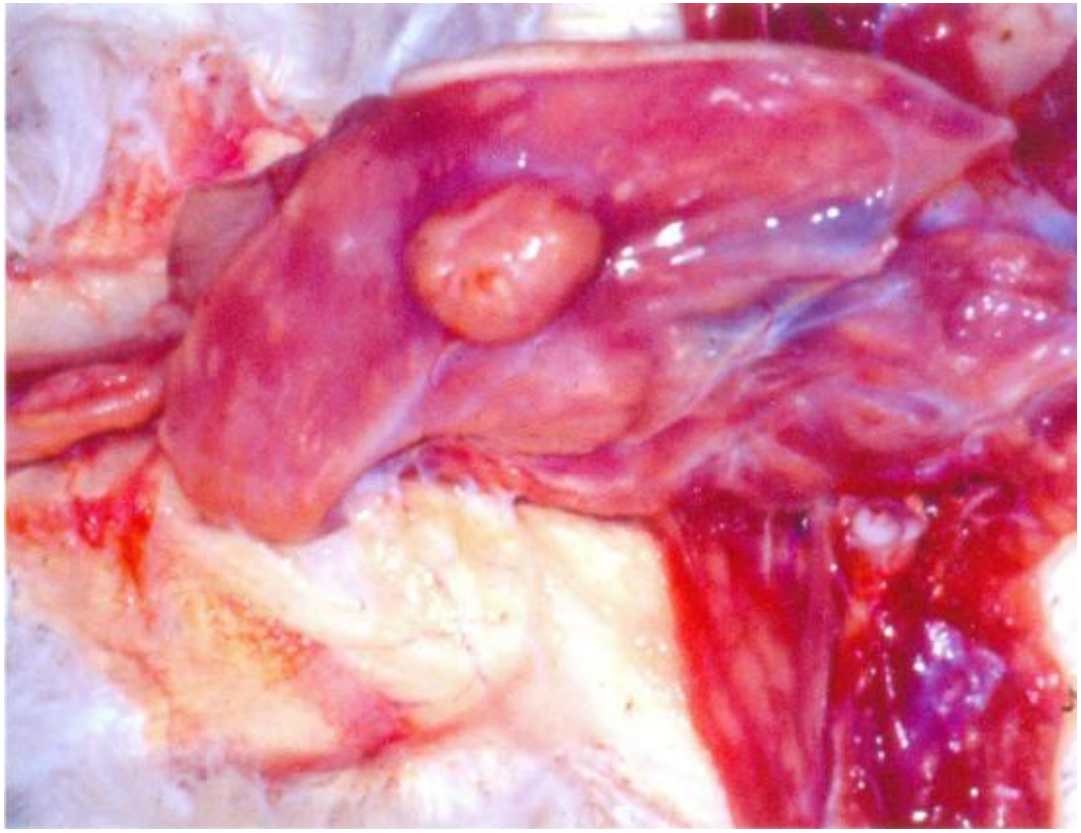
317. A characteristic feature of Me is its simultaneous course with tumours from a different type: mesenchymal, epithelial or mixed . The picture shows a fibrosarcoma to the gizzard associated with MC

LEUKOSIS

318. Mixed mesenchymal tumour (osteochondrosarcoma) to the frontal skull bones: a sagittal cross section.

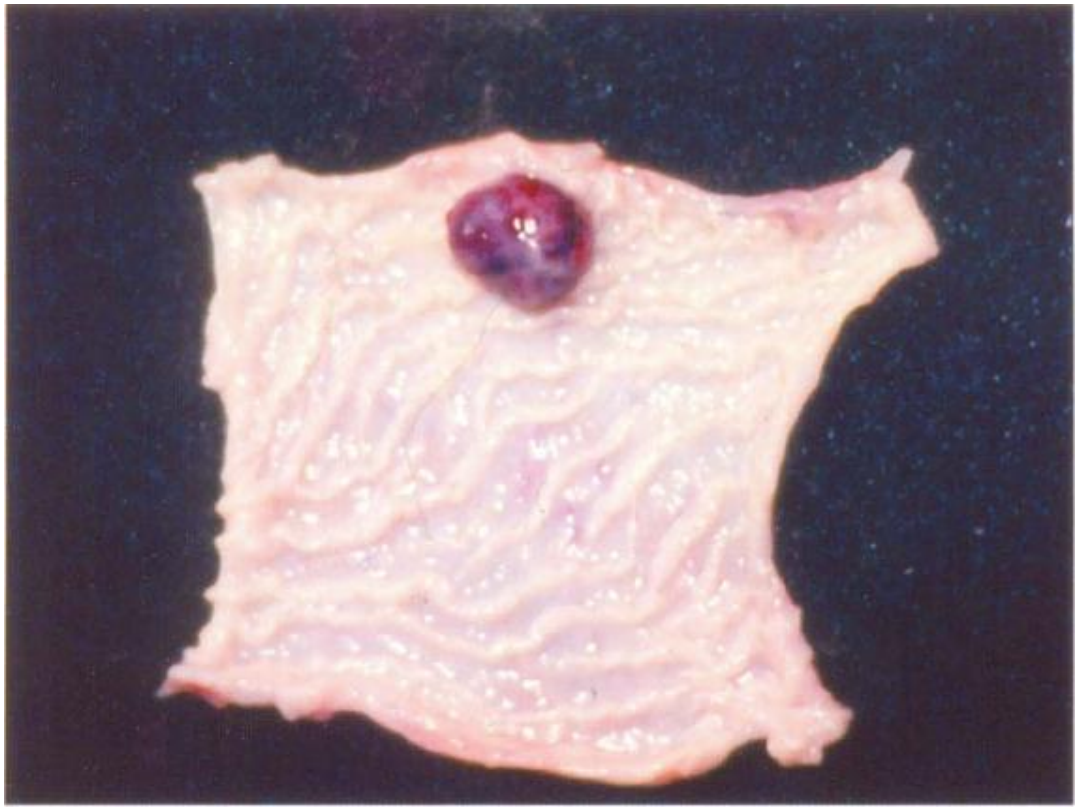
LEUKOSIS

319. Multiple rabdomyosarcoma in pectoral, thigh, abdominal and tracheal muscles.



LEUKOSIS

320. Leiomyosarcoma of the mucous coat of the oviduct



LEUKOSIS

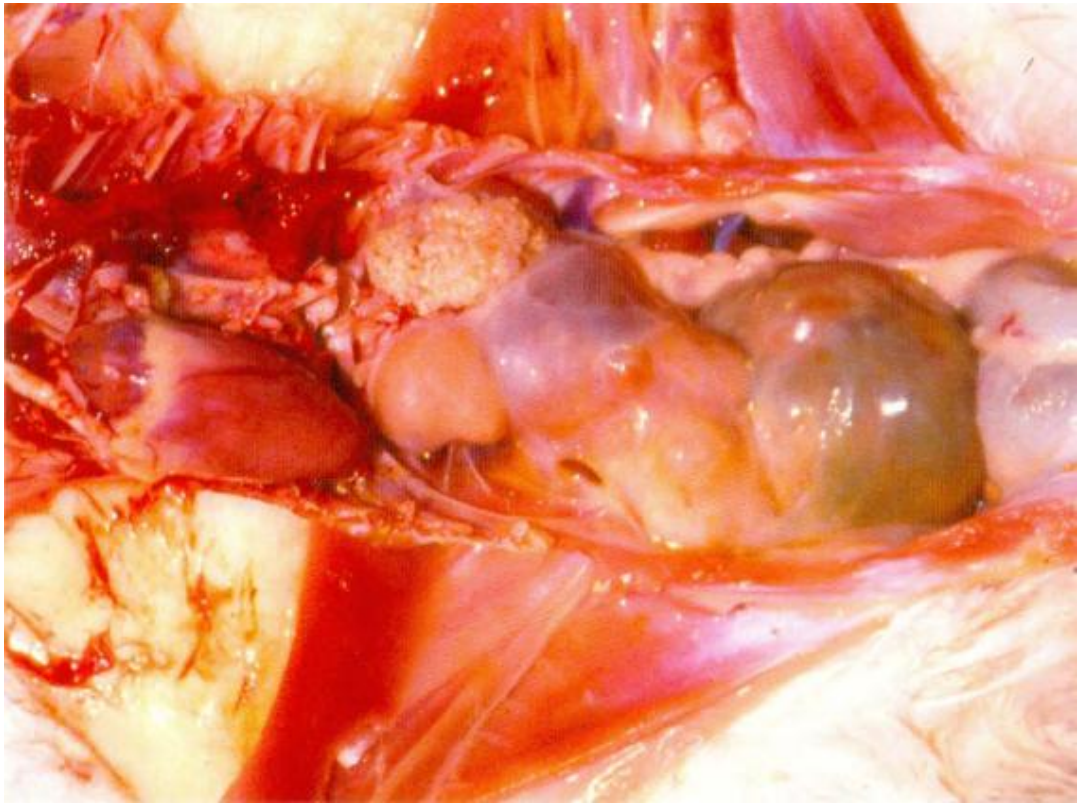
321. Pendulating haemangiosarcoma of the ileal serosa

LEUKOSIS

322. Pendulating multiple myxoma of the small intestine's serous coat

LEUKOSIS

323. Me-associated cystadenoca rci noma of the kidney in a hen.



LEUKOSIS

324. Nephroblastoma of the left kidney, occupying a significant part of the abdominal cavity.

LEUKOSIS

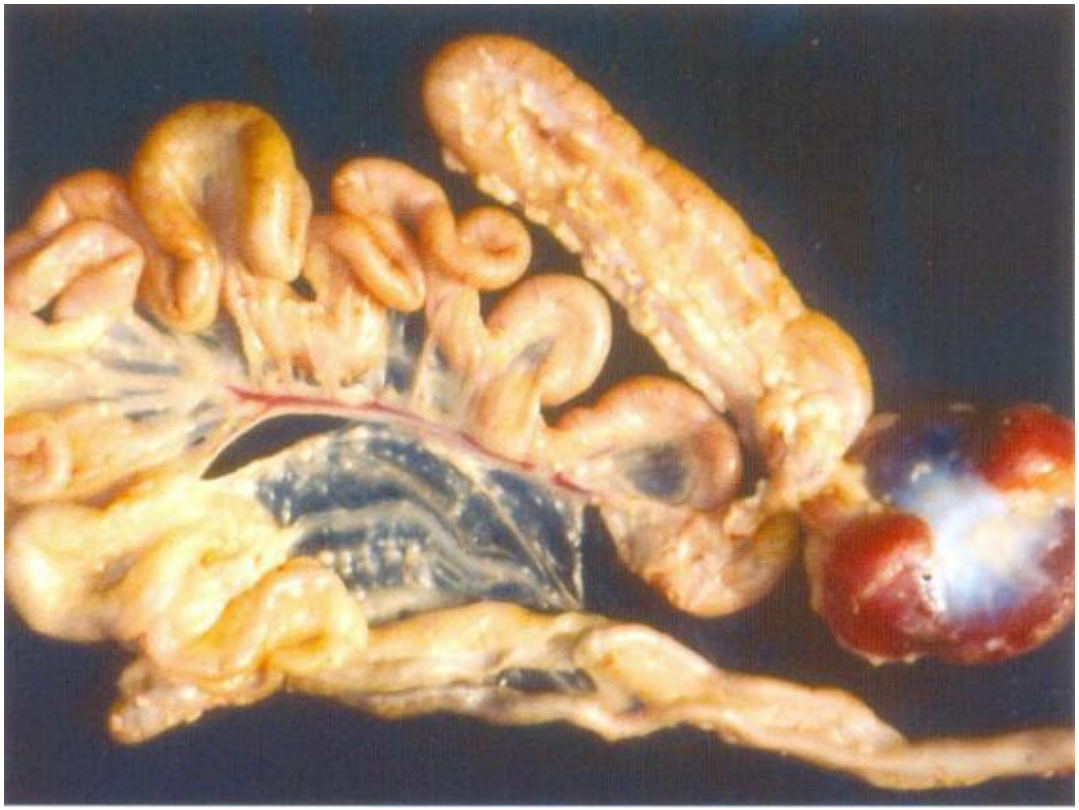
325. Nephroblastoma - the surface of a cross section. The tumour is a pendulating mass attached to the kidney by a fibrous vascularized stem that has undergone a partial necrosis and haemorrhages

LEUKOSIS

326. Granulosa cell tumour of the ovary. The tumour appears as a single, compact, dorsoventrally flattened growth.

LEUKOSIS

327. MC-associated multiple carcinosarcoma
of the mesentery and
alimentary tract's serous coat
(disseminated milliary nodules) .

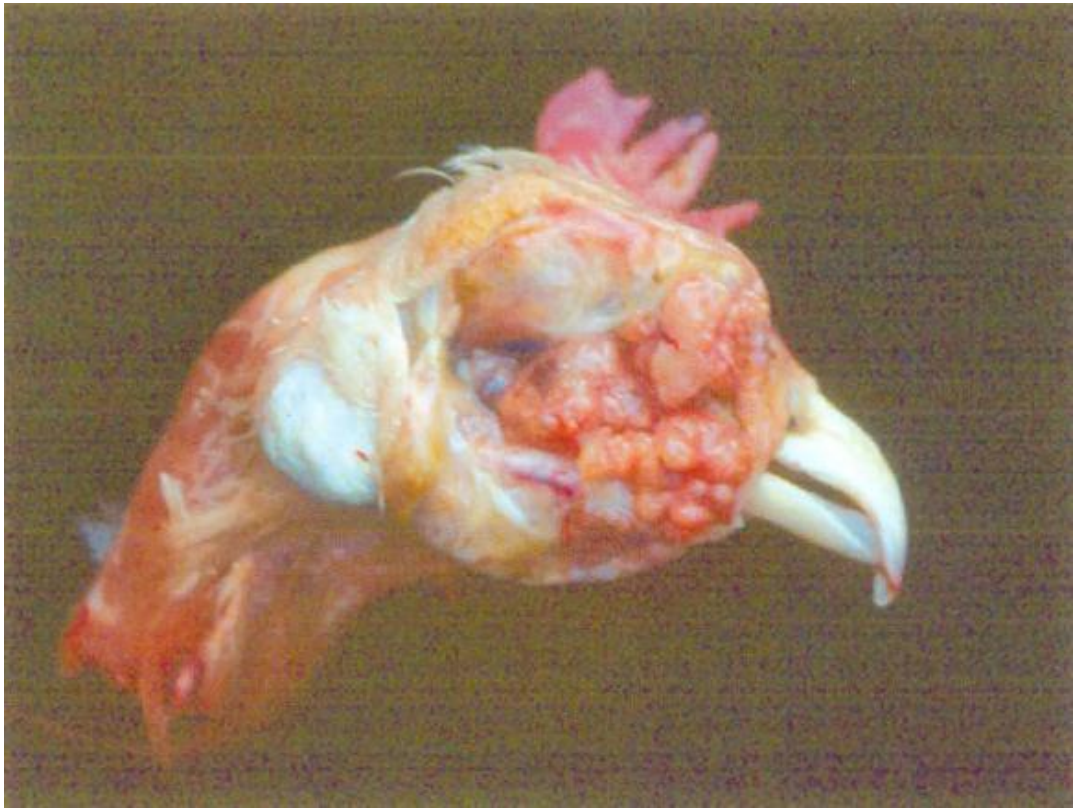


LEUKOSIS

328. MC-associated carcinosarcomas in the region of the right infraorbital sinus.

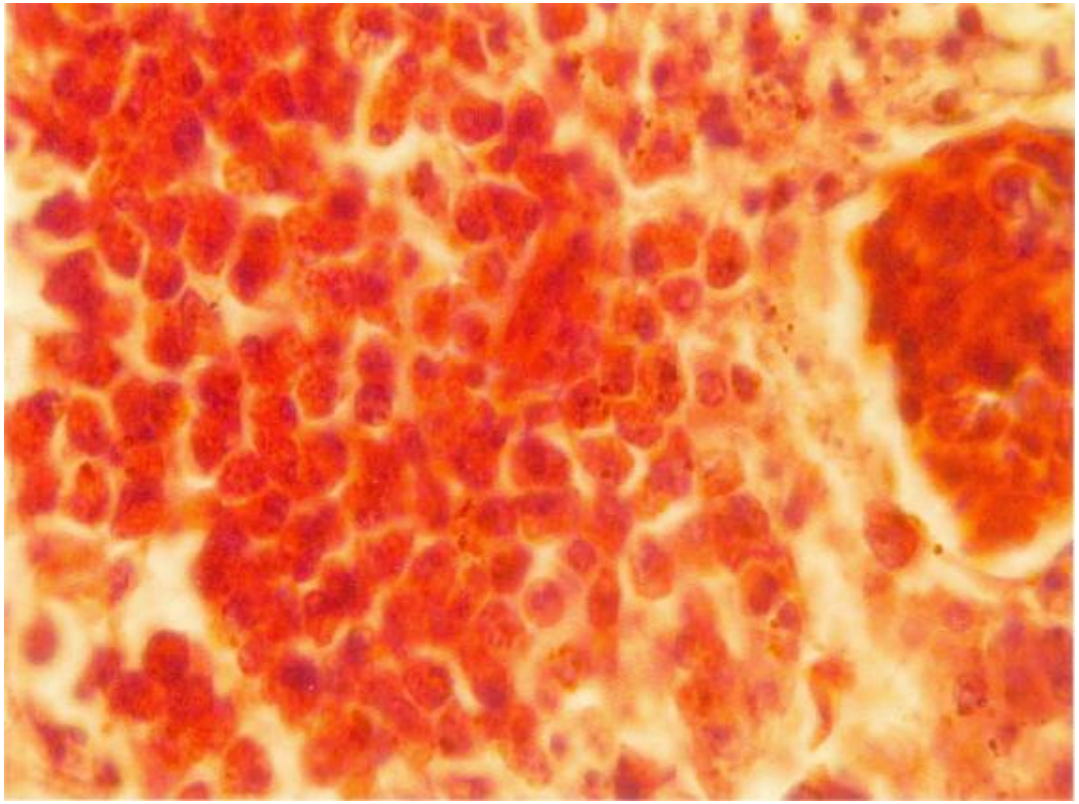
LEUKOSIS

329. Gross appearance of the tumour from Fig. 328 after removal of the covering skin.



LEUKOSIS

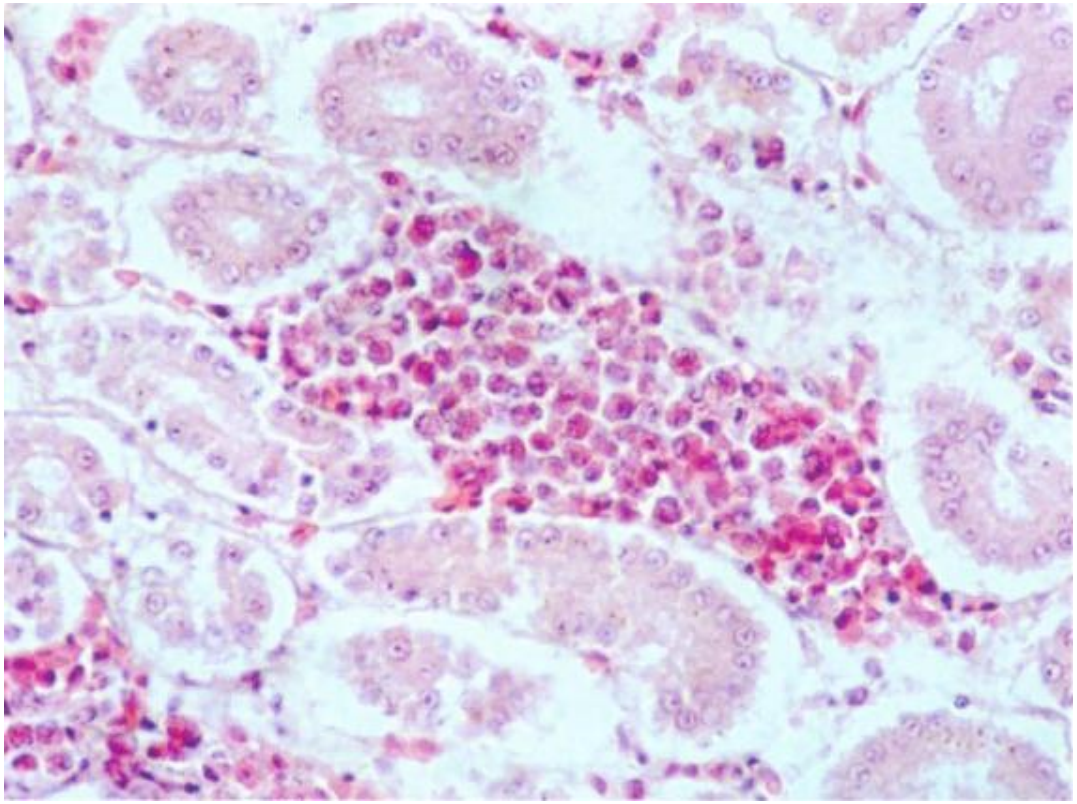
330. Histologically, myelocytomatomas are easily distinguished. Most commonly, they have perivascular localization. Growth of myelocytes with well-formed granules in a liver cross-section.



LEUKOSIS

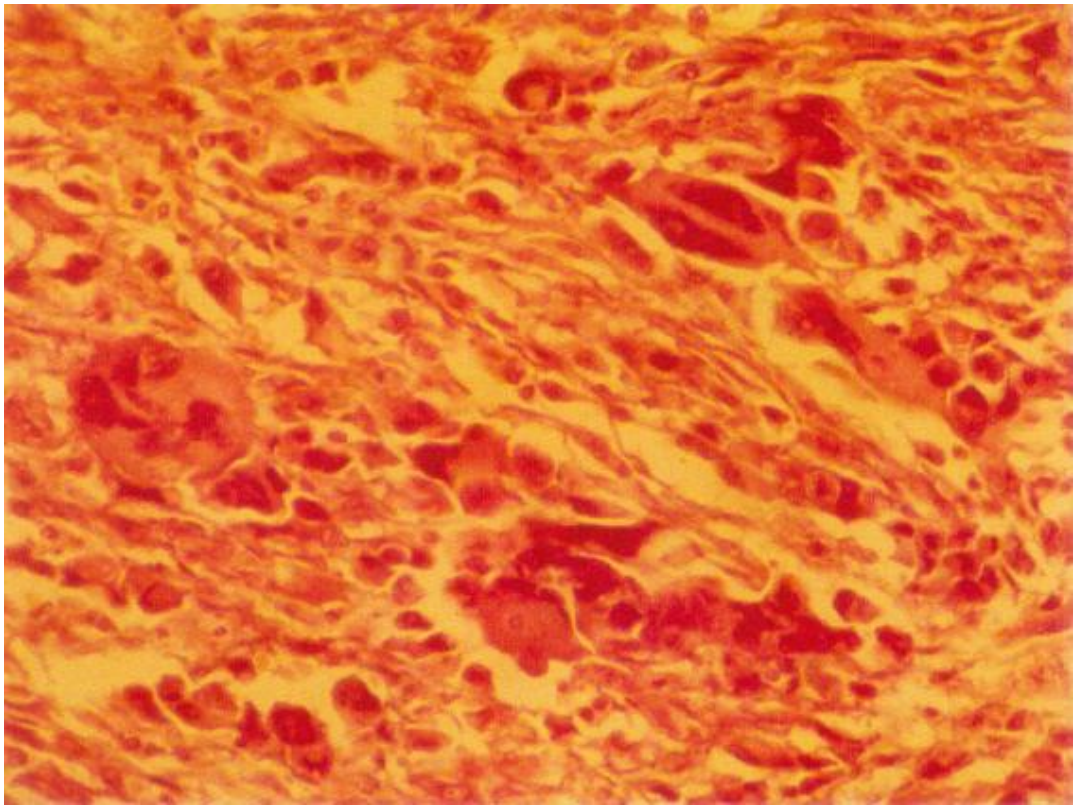
331. Kidney.

Focal intertubular myelocytic proliferations



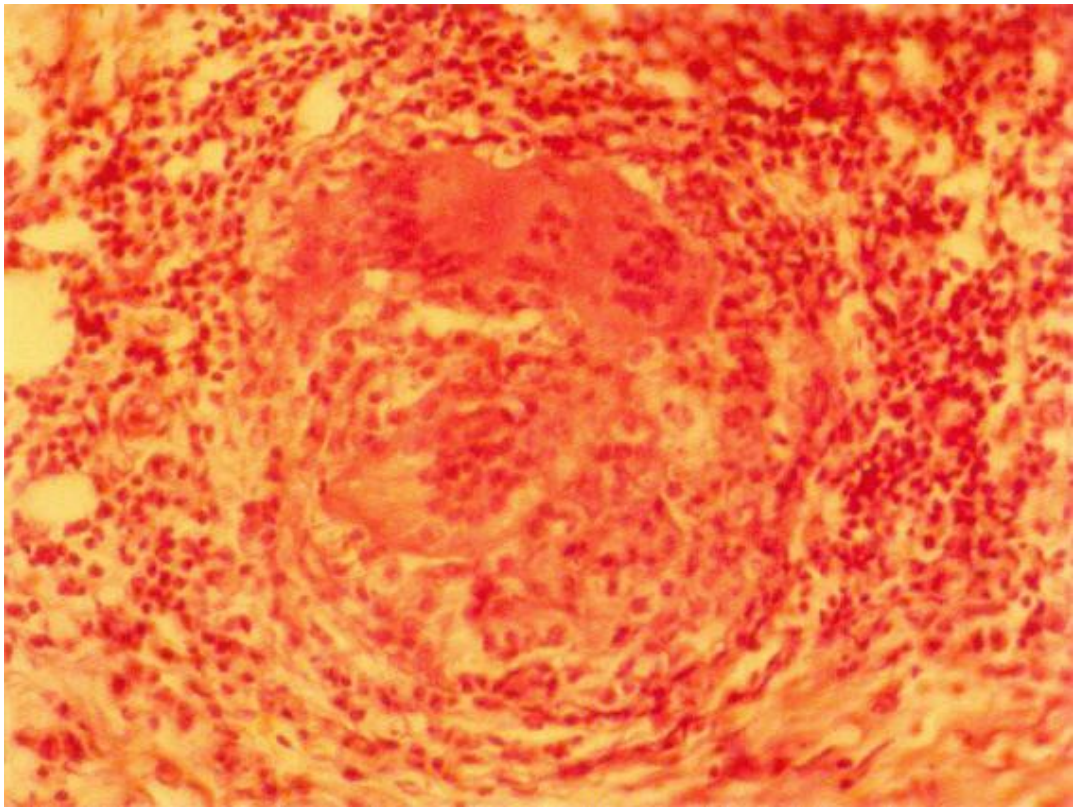
LEUKOSIS

332. Me-associated neoplasms of epithelial, mesenchymal or mixed type demonstrate the respective type of histological structure. Leiomyosarcoma a histological view. Polygonal giant cells with hyperchromatic nuclei.



LEUKOSIS

333. Leiomyosarcoma - small intestine. Prolongations of polynuclear symplastic elements

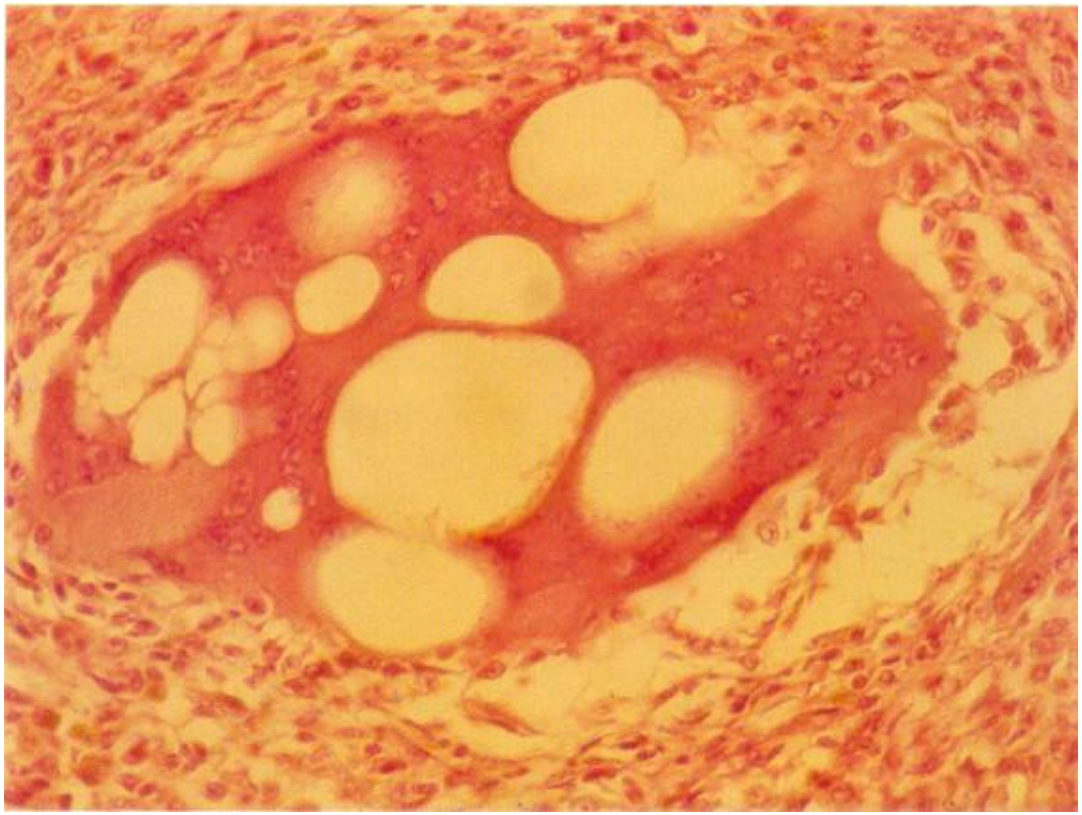


LEUKOSIS

334. Leiomyosarcoma - small intestine.

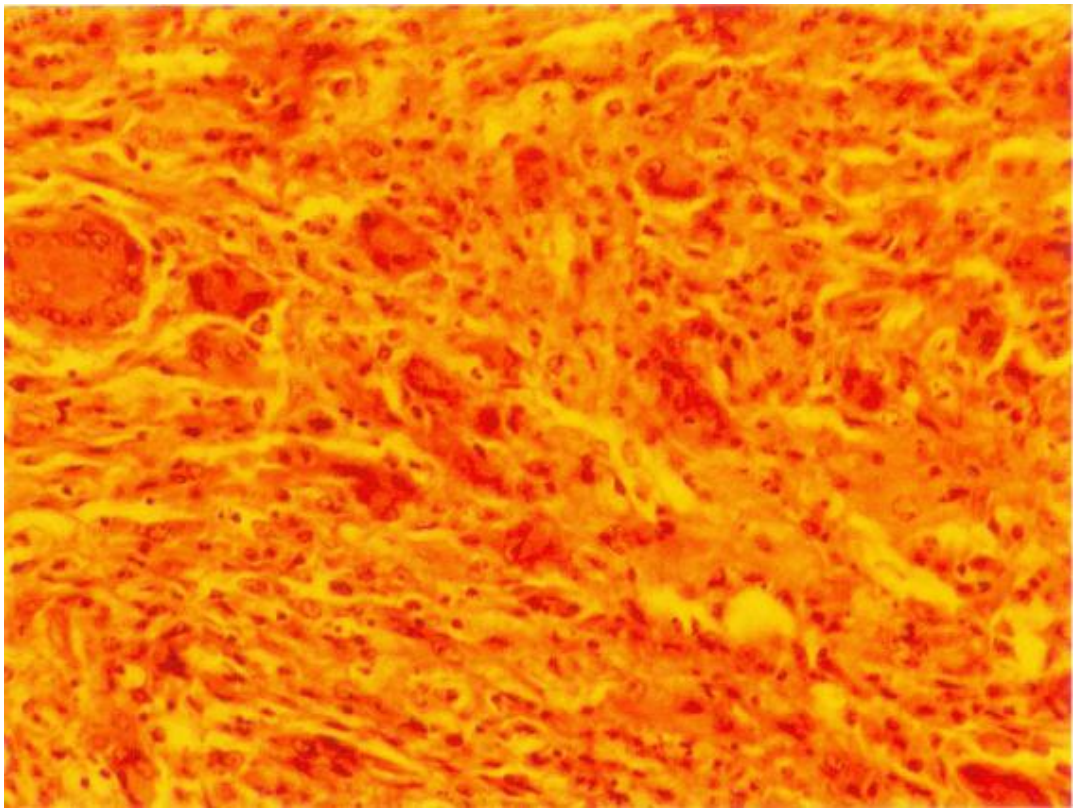
Extraordinary ("monstrous") multinuclear

giant cell with intracytoplasmic vacuoles.



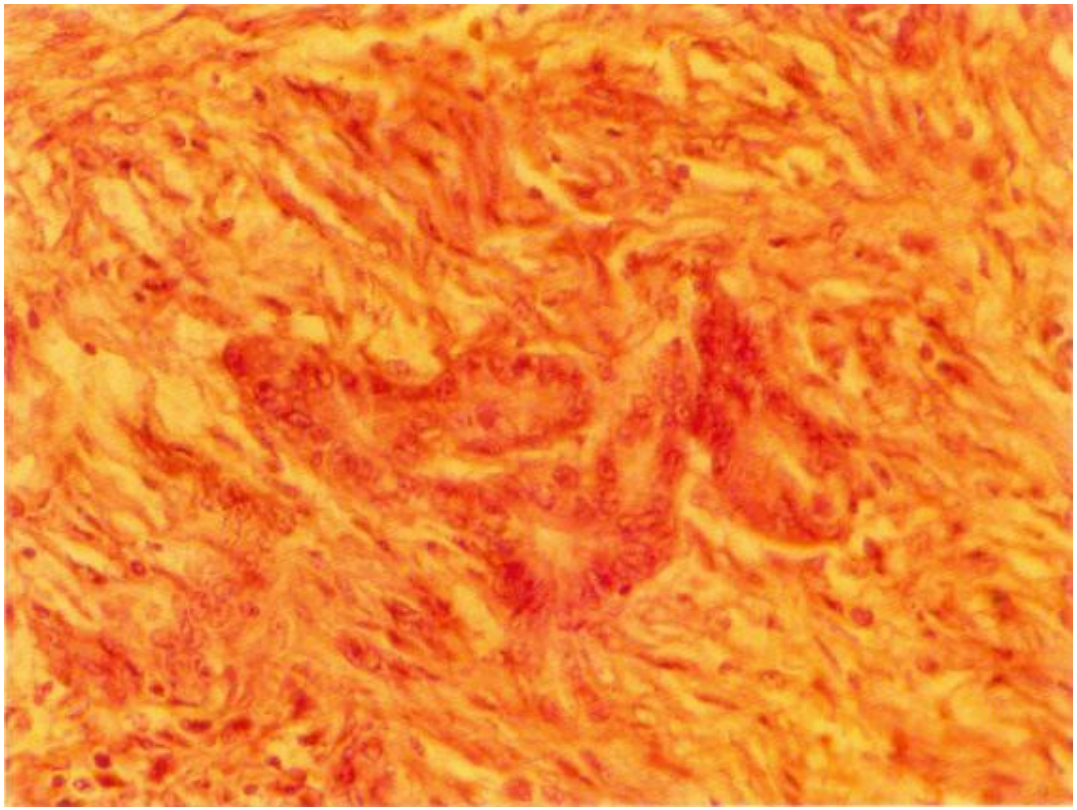
LEUKOSIS

335. Rabdomyosarcoma. An area with multiple hyperchromatic giant cells.



LEUKOSIS

336. Carcinosarcoma of the pancreas. Tubulous glandular epithelial formations of the carcinoma component among the liposarcoma part of the parenchyma. The diagnosis is based upon the entity of data about the history, the gross appearance and location of the tumours and the specific histological lesions. From a differential diagnostic point of view, myeloblastosis
and erythroblastosis
should be considered .

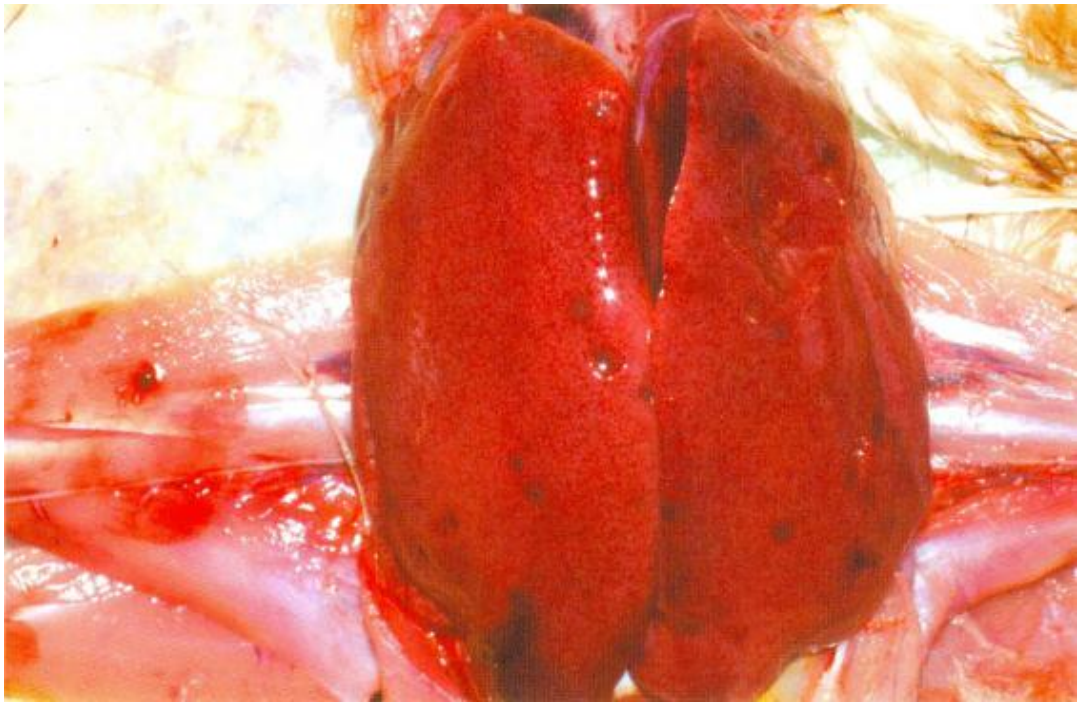


LEUKOSIS

ERYTH ROBLASTOSIS

LEUKOSIS

337, 338. Erythroblastosis (ER) is characterized by intravascular proliferations of immature precursors of erythrocytes. ER has a leukaemic character and is manifested with signs of severe anaemia. The liver and the kidneys are moderately enlarged with a characteristic dark red to mahogany colour, sometimes with haemorrhages.



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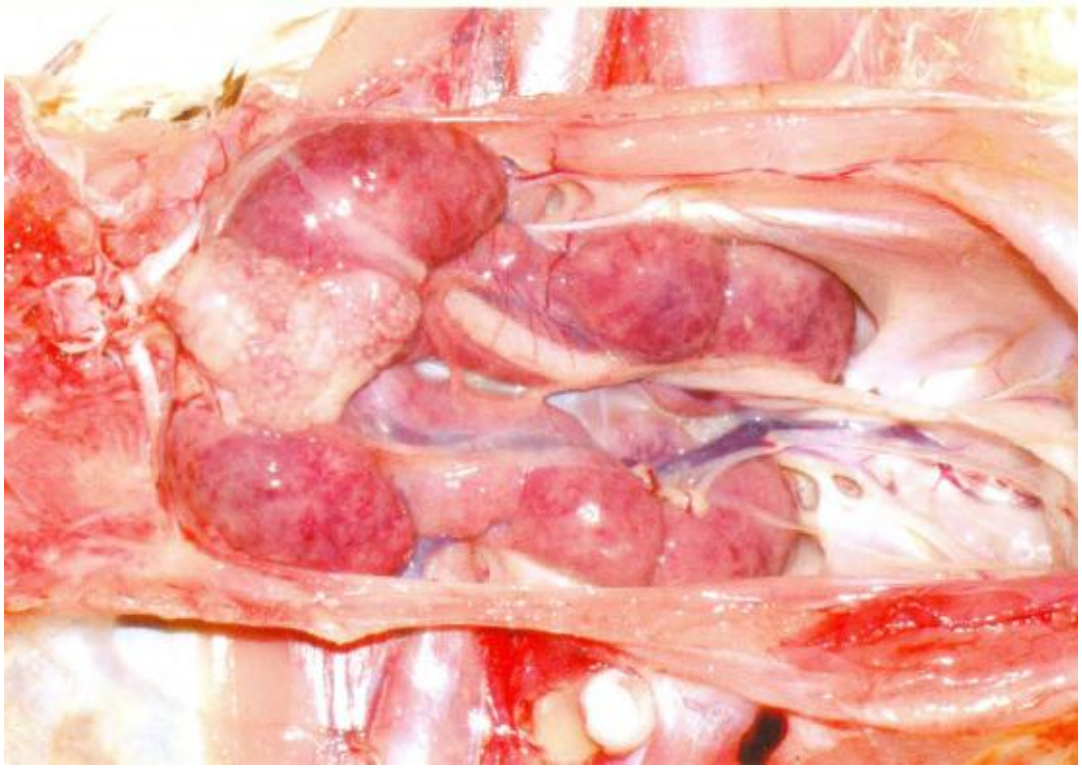
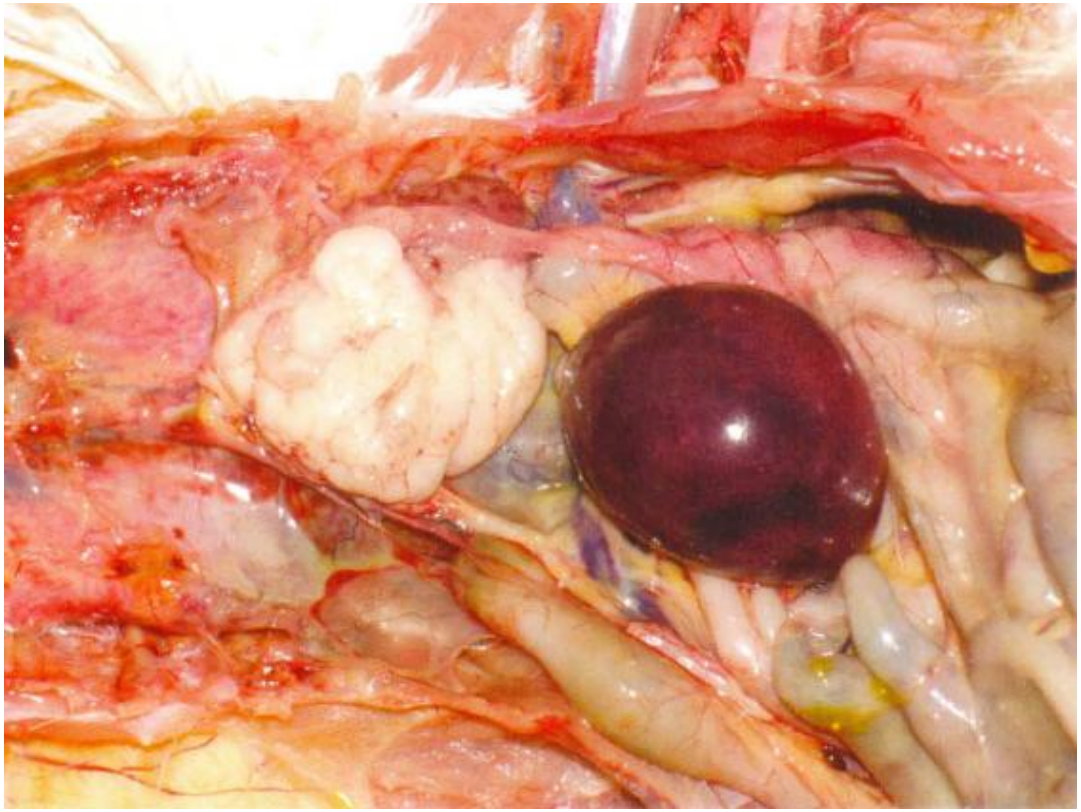


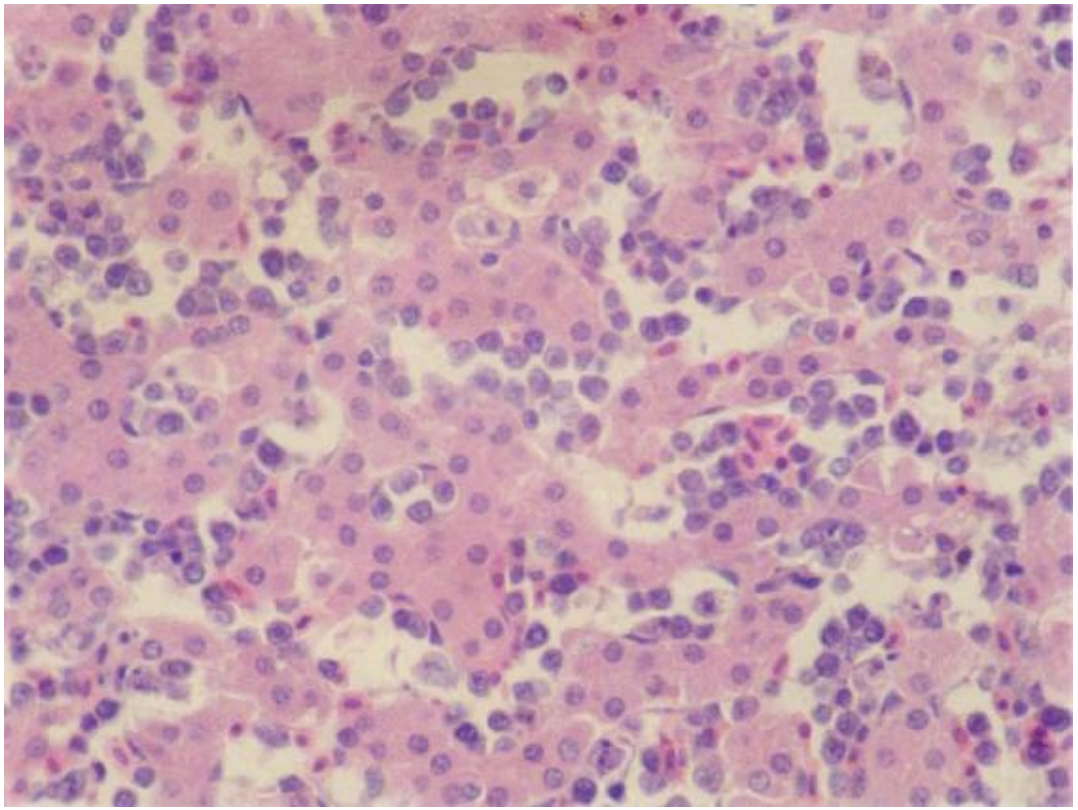
LEUKOSIS

339. ER is caused by the avian eryhtroblastosis virus (AEV); the most frequently encountered strains are E-26, ES4, R etc. The spleen is unusually enlarged or atrophied in cases of severe anaemia.



LEUKOSIS

340. Histologically, accumulation of erythroblasts in blood sinusoids and capillaries is seen. The diagnosis is based on visceral histological lesions, typical for ER and peripheral blood haematological and morphological analysis.



LEUKOSIS

OSTEOPETROSIS

LEUKOSIS

341, 342. Osteopetrosis is a neoplastic disease, aetiologically related to the LjS group of viruses. It is characterized by a significant thickening of bone periosteum. The diaphyses of the tibia and/or tarsometatarsal bones are most commonly affected. Often, osteopetrosis is seen simultaneously with II in the same bird.

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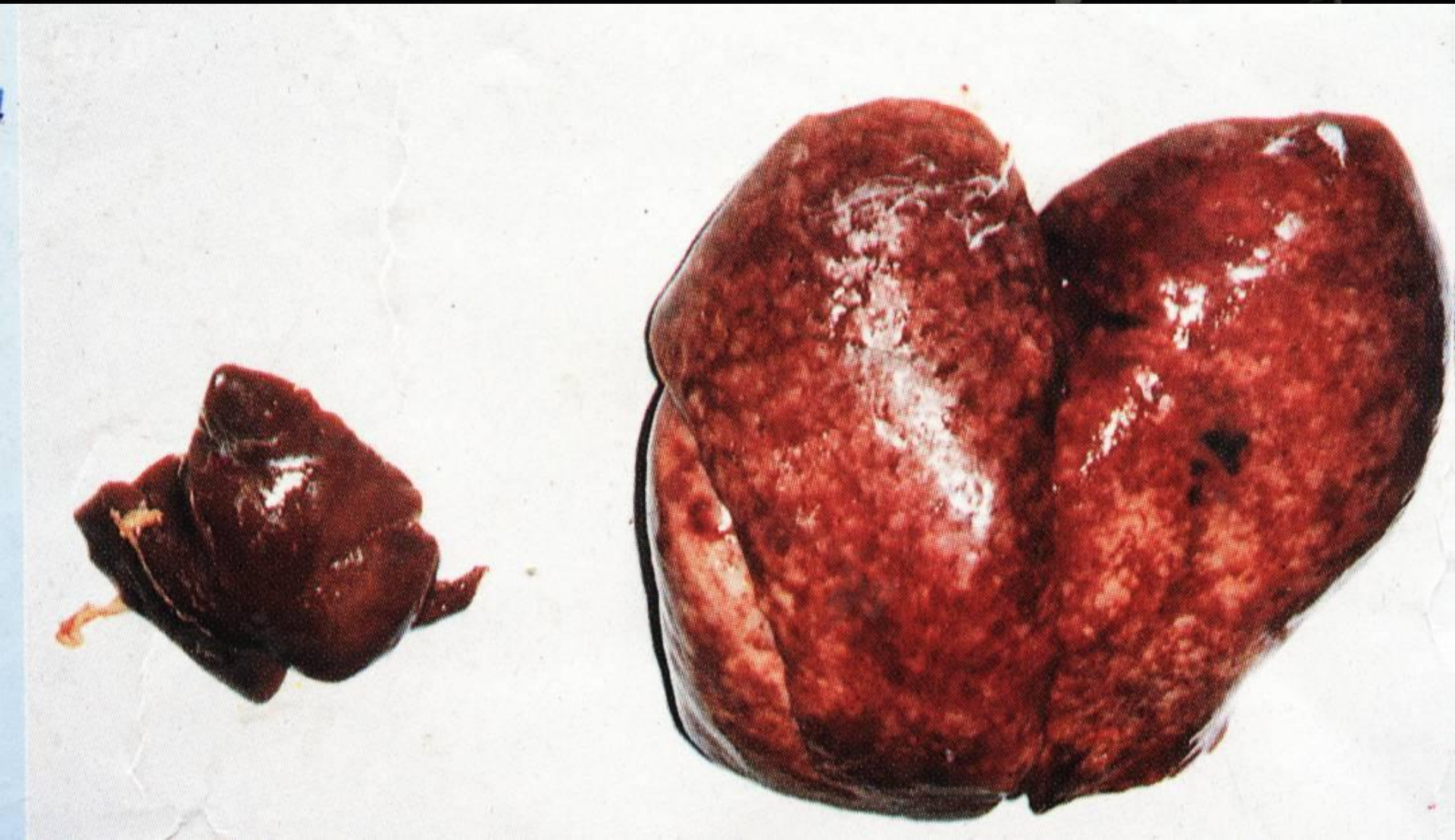
LEUKOSIS

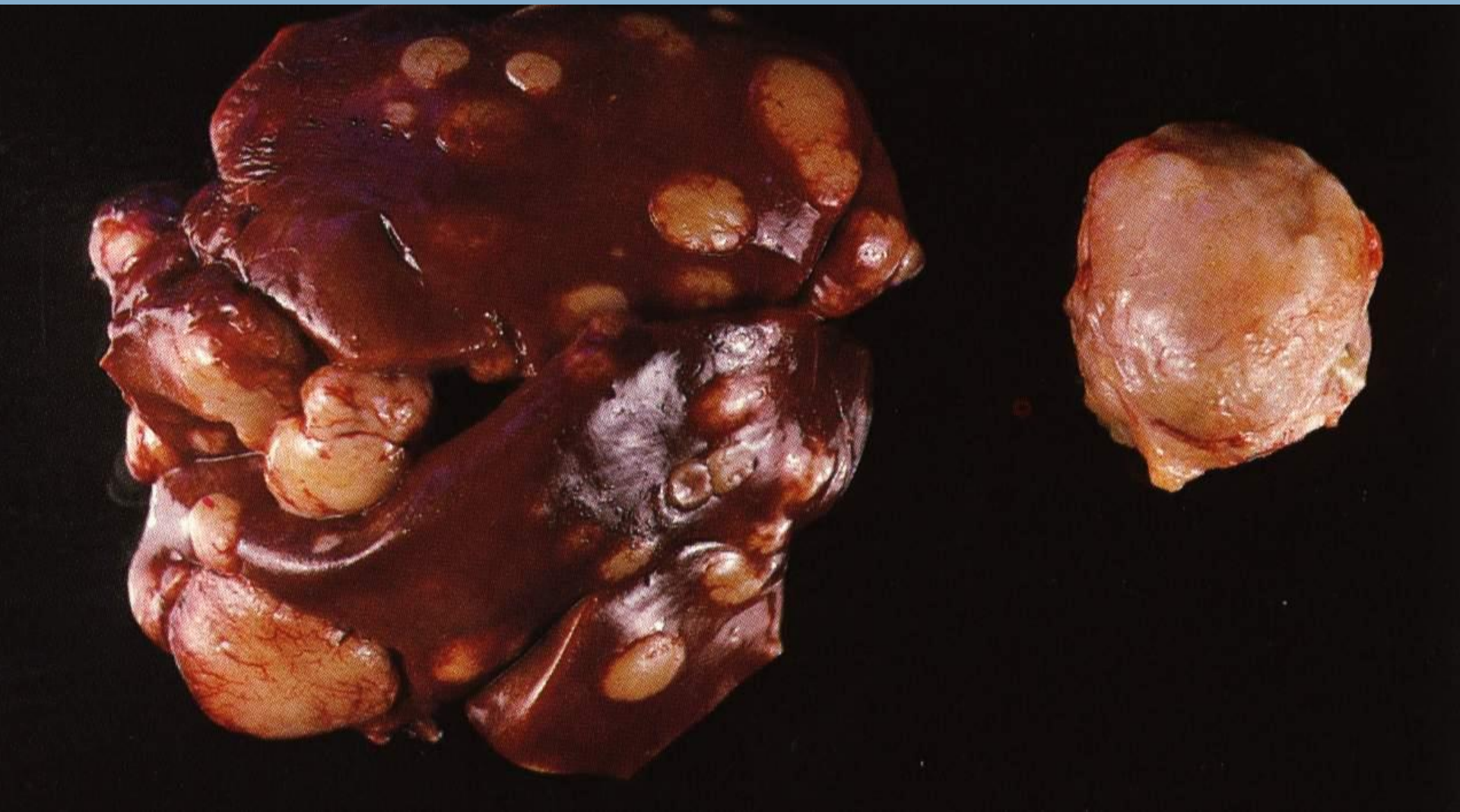
ORGAN : Liver
LESIONS : Diffuse Enlargement
SUSP.DIS. : Tumor viruses (ALC, MD, RE)



ORGAN : Pelvic cavity
LESIONS : Nodular enlargement of liver
SUSP.DIS. : Tumor viruses (ALC, MD , REV)

ORGAN : Pelvic cavity
LESIONS : Diffuse enlargement of kidney
SUSP.DIS. : Tumor viruses (ALC, MD & REV)

ORGAN : Bursa and liver
LESIONS : Nodular enlargement of liver with persistence of Bursa of Fabricius
SUSP.DIS. : ALC

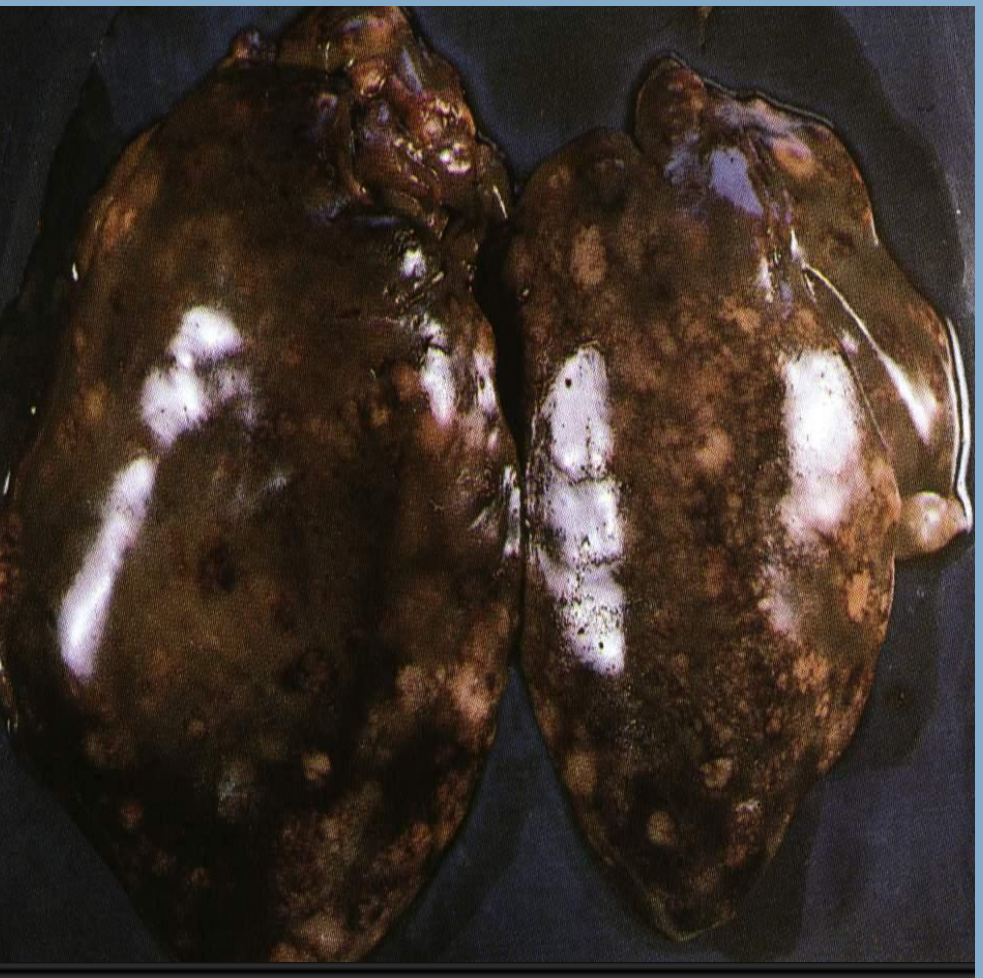


ORGAN : Pelvic cavity
LESIONS : Diffuse enlargement of liver (cherry-red color)
SUSP.DIS. : Erythro-blastosis

ORGAN : Liver and heart of turkey

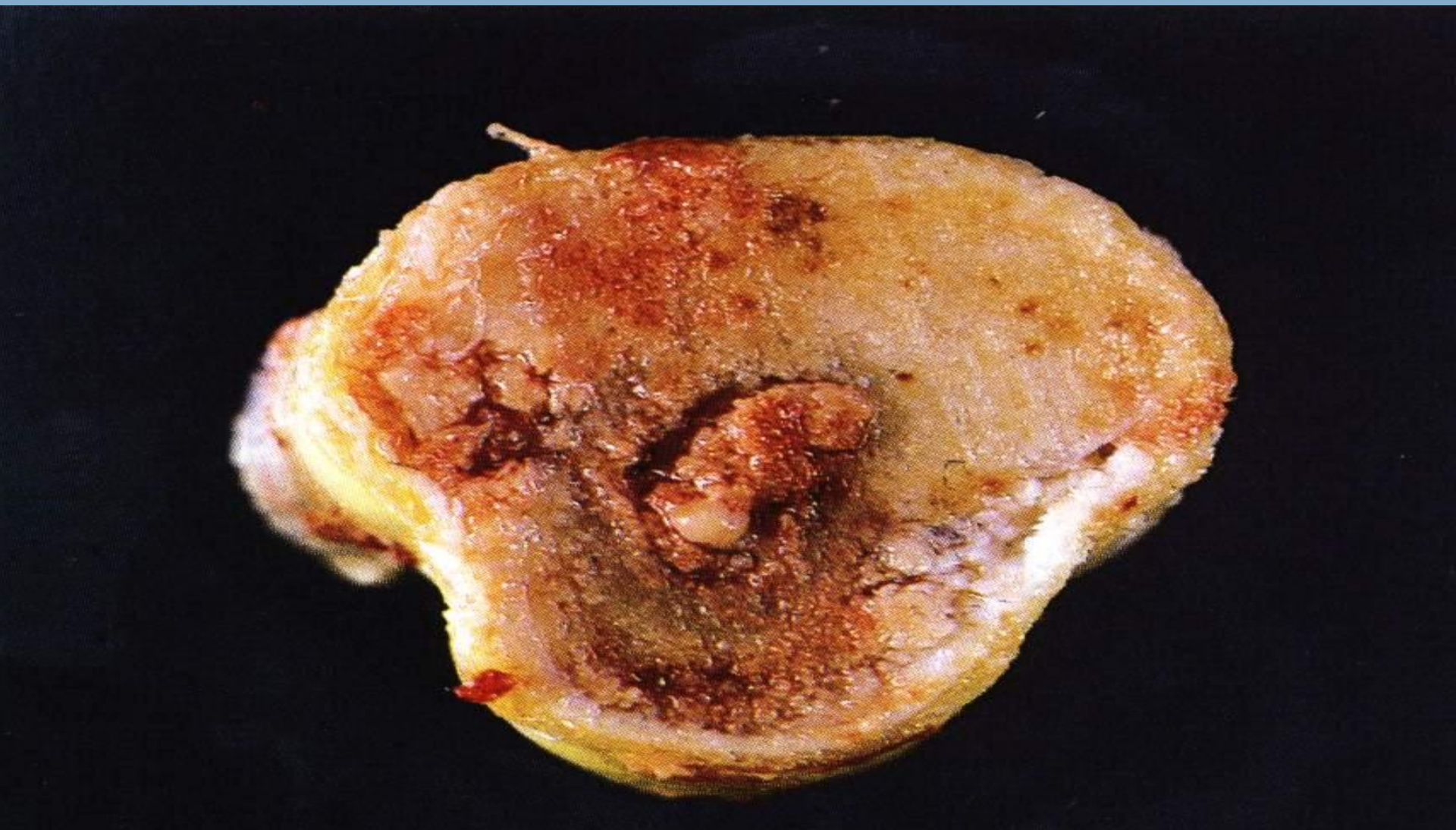
LESIONS : Diffuse enlargement

SUSP.DIS. : Lymphoproleferative disease of turkey



ORGAN : Spleen of turkey
LESIONS : Pale foccal nodule
SUSP.DIS. : Lymphoproleferative disease of turkey

ORGAN : Cross section of long bone
LESIONS : Increase in thickness of bone
SUSP.DIS. : Osteo-petrosis



197 Myeloid leukosis. Chalky white myelocytomas are present on the sternum and ribs of this fowl.