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CASE OF INFANTILE SPLENIC
ANÆMIA (VON JAKSCH).

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THE fatal case of infantile splenic anæmia which I now report occurred in a girl twin, 16 months old. The other twin—a boy—and three older children are healthy as are also the parents of the children. The twins were breast-fed.

During the month of August of this year, the child was brought to Sir Patrick Dun's Hospital suffering from diarrhœa. The mother stated that the child had never suffered from any previous illness but had been delicate from birth. Salicylate of bismuth was prescribed which stopped the diarrhœa. Nothing more was seen of the patient until the middle of October when she was again seen at the Hospital, and was found by the Resident on duty to be extremely pale and wasted, to have a greatly enlarged spleen, and to be covered with purpuric spots. The mother would not leave the child in hospital on this occasion but brought her back on November

1st when she was vomiting blood and had bleeding from the nose. Sterile horse serum (10 ccs.) was administered hypodermically. Calcium lactate in 5 gr. doses was given by the mouth in 10 minims of whiskey. Rectal salines, which were not retained, were also prescribed.

The hæmorrhage had ceased when I saw her next morning. She was greatly emaciated, the skin of a creamy colour and covered with petechial spots, and the mucosae were blanched. Her temperature was 100° F., pulse 124, and respiration 32 per minute. The anterior fontanelle was very large and depressed, the face pinched and eyes sunken. The abdomen was much distended. The enlarged spleen reached to Poupart's ligament on the left side, its anterior border extending to the middle line of the abdomen. It was smooth and firm and apparently painless. The liver reached to a couple of finger's breadth beyond the costal arch in the right mammary line. There was no evidence of enlarged lymph glands in the cervical or axillary regions, but very small glands could be palpated in the inguinal region.

Blood was obtained with difficulty for a Wassermann (which proved to be negative) and for a blood count which gave the following results :

Reds, 2·450,000 per cm.

Hb., 35%.

Colour index, ·7.

Whites, 20,000 per cm. (This count was subsequently found to be too low.)

Blood films were made which revealed the presence of

1. *Erythroblasts* (normoblasts, megaloblasts, and cells showing mitosis), poikilocytosis, anisocytosis and slight degrees of polychromatophilia.

2. Differential counts of the leucocytes gave :

Small lymphocytes	...	70-78%
Polymorphs	...	11-7%
Transitional cells	...	10-5%
Myelocytes	...	12-5%

Fig. II.—Various types of nucleated red cells found in films. In left-hand lower corner is a normoblast. Giemsa staining.

That evening (November 2nd) her temperature rose to 102° F., pulse 144, resp. 46.

Early next morning (November 3rd) the temperature was 102·8 F., pulse 160, resp. 60, when she died.

The post mortem examination was made by Dr. E. C. Smith who reported as follows :

Post Mortem Examination.

Body greatly wasted, absence of subcutaneous fat, petechia spots over entire body, including a large one—size of a six-pence—on the forehead.

<i>Head</i>	...	Ant. fontanelle larger than normal.
Brain appeared slightly congested, no signs of meningitis.
<i>Thorax</i>		Thymus not enlarged.
Heart lay free in pericardium and pericardial fluid was not in excess.
Lungs and pleuræ not tubercular, bronchial glands enlarged.
A small portion of lower lobe of right lung appeared to be congested and one section showed granular pale spots.
<i>Abdomen</i>	...	No free fluid in peritoneal cavity.
Spleen enormously enlarged.
Liver enlarged to a much less degree than spleen.
Intestines and peritoneum showed petechial hæmorrhages.
The mesenteric glands and chains of retroperitoneal glands were considerably enlarged.
Kidneys appeared to be normal.

JAMES CRAIG.

Examination of the Blood.

The examination of blood films showed a remarkable distribution of cells. There were a large number of mono-

nuclear cells with nuclei showing uniform deep staining and a basophil protoplasm variable in amount and without granules. The nuclei were in some cases round, in others showed beads projecting from the periphery, in others were formed of irregular conglomerations of round masses of different sizes. Sometimes they appeared as two masses crescentic in shape at opposite sides of the cell, connected by strands of chromatin.

Some of these cells were apparently lymphocytes, others were undoubtedly nucleated red cells in various bizarre conditions of direct nuclear division (see fig. 2).

On counting, it appeared that these cells made up 82% of all nucleated cells. On endeavouring to separate them 54% were reckoned as lymphocytes, 28% as nucleated reds, but in many cases it was very doubtful under which head they ought to come.

The neutrophils, including transitionals, were 11%, large mononuclears $2\frac{1}{2}\%$, eosinophils $2\frac{1}{2}\%$, myelocytes 2%. The eosinophil cells were full of large spherical granules staining black with Giemsa and contained a polymorphic nucleus. The myelocytes, were mostly neutrophil. One eosinophil myelocyte was found which showed the ordinary red staining with Giemsa. There were one or two red cells showing metotric division figures.

No blood platelets were observed in any of the films.

Liver.—The liver was increased in size. Its general appearance was normal. On microscopic examination groups of nucleated red cells showing the same appearances as those in the blood were present in the liver capillaries towards the periphery of the organ. These collections of cells were particularly large and dense.

Lymphglands.—The lymphglands in the mesentery were enlarged and deep red, and showed on section masses of red cells which filled the lymph sinuses. In other places the lymphglands were slightly enlarged and pale in colour. On section the distinction between sinus and follicle was obscured, the whole gland being uniform in appearance. There were many capillaries with large endothelial cells. The lymphoid tissues contained many large cells, some multinucleated. There was no increase in the reticular tissue.

Spleen.—The spleen showed increase of fibrous tissue, especially in the malphigian bodies, but also in the pulp. This fibrous tissue had the characters of young granulation tissue in various stages of development. There were many cells in the pulp tissue which contained granules staining light red or yellow with Giemsa stain. Some of these were large with large pale nuclei sometimes indented (myelocytes), others were small cells with small round deeply-staining nuclei. Very few nucleated reds with divided nuclei were seen in the spleen.

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