chiasmal injuries, and was suggested as the causal lesion in an optico-chiasmal injury reported previously (Hughes, 1943). The negative findings in this case seem to support this view. The reported results following operation for intrasellar haematomas are not encouraging, and it seems possible that the haematomata were coincidental findings, associated with trauma in the sellar region, and not the actual cause of the chiasmal injury. It seems quite possible that the stretching injury postulated above, if present in extreme degree, might result in antero-posterior tear of the chiasma as described in the literature.

My thanks are due to Mr. Harvey Jackson for permission to report this case, and to Dr. S. Schwarzwald for the operative drawing.

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RETINAL HAEMORRHAGES IN APLASTIC ANAEMIA*

BY

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THE following is an account of a severe and fatal case of aplastic anaemia. According to Duke-Elder, retinal lesions in this disease have rarely been described in detail. It seems therefore worthy of record.

Case history.—The patient was a Basuto, aged 28 years, with 3½ years Army service. On January 15, 1945, he was admitted to 65th (Br.) General Hospital with a history of two day's illness, aching all over, fever and bleeding gums. He had had syphilis, and had completed two full courses of arsenic and bismuth. He had received the first injection of the third course on January 12.

He was found to have a slightly raised temperature and pulse, a cardiac systolic murmur, and a very abnormal blood picture. Haemoglobin was 16 per cent., red blood cells 750,000; colour index 1.06; white blood cells 3,100; polymorphs 19 per cent.; lymphocytes 78 per cent.; mononuclears 3 per cent.; very few platelets. Bleeding time was very prolonged. Clotting time was

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normal. Blood film showed gross deficiency of red cells, polymorphs and platelets; there was no evidence of blood regeneration.

Ophthalmic examination.—There was marked pallor of the conjunctivae, but the external appearances were otherwise normal;

there was no strabismus; no abnormality in the pupils; optic media were clear.

The fundi showed gross changes. The optic discs showed blurring of the upper nasal edges only. Retinal vessels were normal in size and contour, with slight haziness of outline near the discs. There were gross haemorrhages, all nearer the discs than the periphery and the majority close to the larger blood vessels. They were of these types:—

- (1) Moderate-sized, flame-shaped plaques up to 2 D.D. long, some with a yellowish centre, sometimes glistening slightly.
- (2) Narrow streaks, about 1 D.D. long, close to blood vessels.

(3) Two or three punctate haemorrhages in the macular areas. One small exudate was noted.

There was generalised retinal pallor, especially noticeable in a Basuto; at the same time there was a slight degree of retinal oedema in the area surrounding the optic disc.

Treatment.—He was given a number of blood transfusions; ascorbic acid 300 mgms. daily; neohepatex 2 c.c. intramuscularly daily; ferri and ammon. citrate t.d.s.

Course.—A sternal puncture was performed. Total leucocytes 6,300 per cu. mm. differential count; polymorphs 12.5 per cent., lymphocytes 78 per cent., monocytes 2.5 per cent., eosinophils 1 per cent., myelocytes 1.5 per cent., myeloblasts 3.5 per cent., megaloblasts 1 per cent. The small number of immature cells suggested gross atrophy of the marrow.

January 24. Ten pints of blood had been given. Red cells and haemoglobin were brought to satisfactory levels, but virtually none of the leucocytes and platelets had survived. No reticulocytes were found. There were still no signs of any bone marrow activity.

January 26. Retinal haemorrhages show a slight absorption, with no fresh ones.

February 5. The haemoglobin had dropped to 29 per cent. Leishman films showed very few platelets, very few leucocytes and an occasional polymorph. There was no evidence of blood regeneration. Patient was worse, with free bleeding from nose and gums and haematuria.

February 7. Patient died.

Post-mortem report.—Brain showed intense pallor with small petechial haemorrhages on the under surface of the cerebellum and medulla. Thorax: lungs had no haemorrhages; the epicardial surface of the heart was covered with fresh haemorrhages. Abdomen: stomach mucosa and the intestines showed fresh haemorrhages; normal but pale liver; haemorrhages in the kidneys and suprarenals; spleen had old haemorrhages. Sternum: no active marrow; femur: right femur had only two patches of active marrow; remainder was soft and pale. Eye: one eye was excised and macroscopically showed an increase in number and size of the haemorrhages, most numerous along vessels and just lateral to macula; largest haemorrhage was 3 mm. long.

Comment.—This is a classical pathological picture of aplastic anaemia; there is no blood regeneration. It is not certain whether the venereal treatment was a causal factor in the condition, but in view of the fact that his symptoms started immediately after the first injection of the third course of arsenic, and that he had already had two courses without ill effects, an idiopathic origin is

more likely. He was kept alive for $3\frac{1}{2}$ weeks with blood transfusions, but at no time was there any evidence of regeneration from the marrow. Post-mortem showed the classical picture of complete bone marrow aplasia and multiple submucous haemorrhages.

My thanks are due to Colonel G. T. Gimlette, A.M.S., for permission to publish this case, and to Sergt. M. Stuart, R.A.M.C., for his painting of the fundus.

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HAEMORRHAGE FROM THE CONJUNCTIVA*

Notes on a case of capillary angioma

BY

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GLASGOW

ON November 25, 1944, a married woman, aged 40 years, complained of having suffered on two occasions from bloody tears. About six weeks previously during the evening she felt something hot running from her right eye, and on applying her handkerchief she noticed that it was stained with blood. The onset had no association with menstruation, and the patient was a healthy woman entirely free from any hysterical signs or symptoms. There was no history of injury, and none of haemophilia in the family. Examination of the blood revealed no abnormality. The bleeding on the first occasion lasted for a few minutes and was arrested by tightly applying her handkerchief to her eyelids.

She had one subsequent attack about a month after the first. On everting the right upper eyelid a small reddish growth about 3 mm. by 2 mm. was noted on the palpebral conjunctiva near the superior margin of the tarsus. This was seen by the slit-lamp to be highly vascular. The growth was excised along with a piece of the tarsus, and a stitch inserted. There was no subsequent haemorrhage.

On histological examination the excised tissue showed the following characteristics.

It had a thickness of 1 mm. It contained the Meibomian glands and a richly infiltrated fatty sub-conjunctival tissue. The

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