NOTES ON A CASE OF SEPTICÆMIA CAUSED BY INFECTION WITH BACILLUS WELCHII.

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The following case would appear to be sufficiently obscure and rare to be recorded.

A mochi (Indian shoemaker) attached to the Royal Artillery was admitted to the Indian Military Hospital, Quetta, on May 5, 1928, not having reported sick previously, but having complained for the previous fourteen days of bleeding from the gums, fever, and passing blood in his urine. He had been treating himself with "country medicine," a sample of which could not be obtained for examination.

On admission to hospital his temperature was 99.6° F., pulse 96, respirations 24. Mentally he was perfectly clear, and although obviously seriously ill was very optimistic about his condition. The following was the result of a preliminary examination:

Heart sounds weak, but no murmur present.
Respiratory system: Normal.
Abdomen: Normal.
Spleen: Not palpable.
Gums: Spongy and hæmorrhagic in places.
Uvula: Ædematous and there were large hæmorrhagic areas present in the left soft palate and tonsil.
Skin: About three dozen petechial hæmorrhages were unevenly scattered throughout the body.
Conjunctiva: Three small hæmorrhages.
Central nervous system: Normal.
Urine: Contained a large amount of fresh blood, microscopically red blood-cells were present, also a few granular casts; no blood-casts.
Blood examination: Negative for malaria, total red-cell count 3,150,000 per cubic millimetre, no abnormal red cells seen; hæmoglobin 50 per cent, white cells, 3,750 per cubic millimetre; differential blood count: polymorphs 21 per cent; lymphocytes, 61 per cent; large mononuclears, 18 per cent. Wassermann reaction was negative, no sign or history of syphilis.

A swab was taken from the throat, also a blood culture, which were sent
to the laboratory for examination. At this stage the diagnosis seemed to
rest between the following: (a) Scurvy; (b) some obscure blood disease;
(c) poisoning by some Indian drug; (d) streptococcal septicæmia;
(e) purpura hæmorrhagica. The last diagnosis was provisionally made.

Clinical course: The patient rapidly went downhill, did not respond to
treatment and died on the fifth day.

During the five days he was in hospital he passed large quantities of
blood in his urine; his death was apparently due to exhaustion and heart
failure. The patient was treated with intravenous injections of calcium
chloride and hæmoplastin with no beneficial result. Blood transfusion
was considered, but was not thought to be advisable.

A post-mortem examination was carried out, and the following findings
were noted:—

Body: Emaciation not marked, numerous subcutaneous petechial
hæmorrhages present, as already described, no wound or abrasion.

Chest: Both pleural cavities obliterated by old firm adhesions.

Lungs: Some congestion at bases.

Mediastinum: No enlarged glands present.

Heart: Pericardial fluid slightly increased in amount and tinged with
blood. Half a dozen petechial hæmorrhages present on visceral layer of
pericardium. No active pericarditis.

Peritoneum: Numerous large hæmorrhages under the visceral layer.
One large retro-peritoneal hæmorrhage on right side of pelvis and round
right kidney. No enlarged lymphatic glands, no peritonitis.

Liver: Right lobe of somewhat spongy consistence and in appearance
resembled lung. Left lobe normal. No hæmorrhages present.

Spleen: Small and somewhat fibrosed.

Kidneys: Left, two small hæmorrhages into apices of pyramids, other­
wise normal. Right, hæmorrhages into pelvis of kidney, which was filled
with blood-clot. Cortex congested.

Bladder: Filled with blood-clot, mucous membrane greatly thickened
and hæmorrhagic.

Stomach: Hæmorrhagic in places.

Intestines: Distended; numerous hæmorrhages into mucous membrane.
Specimens of liver, lung, kidney, bladder, and spleen were taken for
the purpose of making sections.

On examination of the sections, infection with B. welchii was immediately
suspected, and the original blood-culture, which had been taken before
death and which was still in the incubator, and proved sterile on being
grown aerobically, was re-inoculated into milk and grown anaerobically.
B. welchii was grown out in pure culture, which was afterwards proved
biochemically, culturally, morphologically, and by animal experiment.

No similar case can be found described in the medical literature avail­
able in Quetta. The chief points of interest of the case seem to be:—

(1) Whether B. welchii was responsible for the disease as a whole, or
whether it was a terminal infection.
Clinical and other Notes

(2) Method of entry of the invading organism. No cutaneous wound was present; entry was probably effected through the left tonsil.

(3) The close resemblance of this case to purpura hæmorrhagica, and the possibility of such cases being really due to an infection with a similar organism.

(4) The abnormality of the white cell count, i.e., leucopenia with relative lymphocytosis of sixty-one per cent, and polymorph decrease to twenty-one per cent.

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A CASE OF MYELOCYTIC LEUKÆMIA.

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The interest in the case of myelocytic leukæmia, which is shortly described in the following notes, lies in the enormous size of the spleen at the time of death, and in the comparatively short duration of the last phase of the illness.

The patient was a rifleman, aged 25, and with a total service of seven years, of which five and a half years had been spent in India. He was stationed in Landikotal, and had been employed for seven months as a dining-hall orderly. It is likely, therefore, that he was not regarded as one of the more robust members of his company. On August 17, 1927, he reported to his medical officer, complaining of pain in the left shoulder.

His medical history sheet contained seven entries. In February, 1921, he was treated at Netley for fifty-one days for iridocyclitis of the right eye. It is noted that the discs and fundi were normal, and the media clear. At Benares, in June, 1923, he was in hospital for eight days with benign tertian malaria, and for six days with iritis. He had a second attack of benign tertian malaria in July, 1923. In May, 1924, he was admitted to the Military Hospital, Peshawar, for iritis of the left eye, and remained under treatment for twenty-four days. In August, 1924, iridocyclitis of the right eye caused his admission to hospital for twenty-nine days, and in April, 1925, he was in hospital for five days with phlebotomus fever.

He was admitted to the Combined Indian Military Hospital, Landikotal, on August 17, 1927, and gave a history of having been rather constipated for the previous week, and of pain in the left shoulder for two or three days. He had had an attack of “shivers” while straining at stool that morning.