

BENZOL IN LEUKAEMIA.

Korányi made some very important observations on the effects of benzol poisoning in three cases of leukaemia at Johns Hopkins Hospital. Selling studied the effects of benzol in animals. In these cases of poisoning there was a good clinical picture of purpura hæmorrhagica, and a remarkable reduction in the white corpuscles. There was a condition of leucopenia. One case there was a reduction of whites from 1,280 per Cmm. to 480, and in the other from 640 to 140. With this leucopenia there was an anæmia of 640,000 and 1,500,000, and 8 and 15 of hæmoglobin respectively. There was little change in the reds and no myelocytes.

The experiments of Selling showed that benzol is a powerful leucotoxin, destroying the white cells, and attacking the parenchyma cells of the blood-forming organs. It was found that after repeated injections of benzol there was an aplastic and atrophic condition of the bone marrow, and spleen, the lymph glands and lymph follicles. Regeneration in these took place when the benzol was discontinued. It was also observed that myeloid tissue suffered more than did the lymphoid, and, therefore, there was greater destruction of the polynuclear cells than of the lymphocytes. There is little injury to the circulating red corpuscles, though the erythroblastic tissue of the bone marrow is disturbed. At first there is a leucocytosis followed by a leucopenia. The aplastic blood organs recover in from 10 to 20 days.

After the initial rise of the leucocytes, there is a fall about the end of the second week or the beginning of the third. The red corpuscles may be higher at the end of the treatment. All forms of leukaemia are benefited. The action of benzol is slower than that of X-rays, but may be useful when the latter has failed. Those who have had X-ray treatment react more promptly to the benzol treatment. The results of this treatment appears to be transitory. Small doses seem to stimulate the bone marrow, so that it is necessary to give daily from 3 to 4 grammes in capsules with an equal amount of olive oil. Each capsule should contain about half a gramme.

Under this treatment Korányi reports a case where the white corpuscles dropped from 173,000 to 8,000, and the reds rose from 3,000,000 to 4,000,000. Cases are on record where it does not appear to have reduced the white cell count, but the other symptoms were improved. Other observers, as Wachtel, Stein, Billings, Neumann and Klein, report favorable instances of this treatment.

Drs. Jerome Meyers and Thomas Jenkins sum up their article in the *New York State Medical Journal* thus: "Benzol is a valuable ad-