vertebral column. The various pathological changes of the spine interfere with the normal resonance. In the communication a number of interesting cases are mentioned to support these conclusions, the result being set forth in a plate.

Severe Anemia without Bone-marrow Regeneration.—HIRSCHFELD (*Berl. klin. Woch.*, 1906, xliii, 545). Severe anemias, whether secondary or primary, are practically always associated with marked and distinctive changes in the marrow. As the case belongs to either of these groups the metaplasia is normoblastic or megaloblastic usually, a mixed type with normoblasts or megaloblasts predominating, although rarely a practically pure type prevails. These characteristic changes are, however, occasionally absent and the fatty marrow may display no tendency to be transformed into red marrow, and, indeed, in some instances the marrow is almost completely disintegrated and destroyed. The first fully reported case of severe anemia without bone-marrow regeneration was contributed by Ehrlich, and he predicted the autopsy findings from the blood picture. Hirschfeld collects in all ten cases from the literature and adds two of his own. In all of these instances there is a marked reduction in hemoglobin and the number of red cells, the two running about parallel, so that there is no high color index. Changes in form and size are not marked. Nucleated red cells were not present, except in two of the cases in which an occasional normoblast was found. The leukocytes are remarkably few in number—600 in one case—and the lymphocytes greatly increased: Ehrlich's case, 80 per cent.; Engel's, 90 per cent.; Kurpjuveits, 68 per cent. Clinically, the cases are very acute and are marked by a strong hemorrhagic tendency. At autopsy the organs show the characteristic picture of a grave anemia, but the condition of the marrow varies. In the reports of Ehrlich and of Black there is noted a complete absence of the usual transformation of fatty into red marrow in the shafts of the long bones. As nothing is said about the condition of the short bones, Hirschfeld assumes there must have been no gross change. In other cases, besides the persistence of yellow marrow in the long bones, there were atrophy and degeneration of the marrow of the ribs, it being transformed into a red, watery liquid, exceedingly poor in cells. Besides normoblastic and megaloblastic anemias there is then a third group which Pappenheim has called paralytic or asthenic. As a rule, the blood picture reflects the changes going on in the marrow. There are, however, numerous exceptions, and Senator reports a case in which the clinical picture and blood findings led to the belief that the yellow marrow was not transformed, while autopsy revealed a complete lymphadenoid metaplasia.

Leukemia without Leukemic Blood.—EWALD (*Berl. klin. Woch.*, 1906, xliii, 870) reports an unusual case which carries with it many suggestive points in the classification and grouping of the severe anemias and leukemias. The patient, a man aged thirty-seven years, entered the hospital after a six weeks' illness, with intense anemia, a very large spleen, and practically no glandular enlargement. Death occurred after six days, with gradually increasing weakness. The history and

physical examination suggested leukemia, but the most careful blood examinations failed to show any of its characteristic features. There was a marked oligocythemia, but excepting this cytopenia there were no changes in the red or white cells. The leukocytes were not increased in number, their proportion was: polynuclear cells, 71 per cent.; large lymphocytes, 2 per cent.; small lymphocytes, 21 per cent.; myelocytes, 3 per cent.; transitionals, 3 per cent.; eosinophiles, absent. On an average, 740,500 red, and 800 white blood corpuscles were counted to the c.mm. On the fourth day in the hospital the hemoglobin was 28 per cent. Autopsy showed the typical anatomical picture of leukemia with characteristic changes in the marrow and organs. Marrow smears contained a large number of typical myelocytes, a few lymphocytes, and only an occasional nucleated red blood corpuscle. How shall such a case be classified? It may be contended that the leukemic blood picture has been suppressed by an intercurrent infection, a not infrequent occurrence, but the report of a blood examination made at another clinic two weeks before admission to the hospital shows that there had been no gross changes at that time. Neither the clinical course nor the blood picture nor the autopsy findings permits a grouping with the anemias. Pappenheim speaks of an aleukemic period of leukemia, but in this instance the leukemia blood picture never arrived. More and more cases of atypical anemias and leukemias are being reported, and the question of classifying these has led to much discussion. Ewald's case resembles most one reported by Hirschfeld as atypical myeloid leukemia.

Diabetes and Pneumonia.—GLAESSNER (*Wien. klin. Woch.*, 1906, xix, 896). The occurrence of an acute infection in patients with glycosuria frequently increases either temporarily or permanently the output of sugar. It has long been known that febrile infections favor the occurrence of alimentary glycosuria. In some instances, however, the acute infectious disease has a decidedly beneficial influence. Bamberger reports a fall to one-tenth of the previous amount during typhoid fever. After an attack of pneumonia Goolden's patient passed only one-third liter of urine with a specific gravity of 1012, while before he had passed twelve liters of a specific gravity of 1048. Glaessner reports a similar occurrence in a woman aged fifty-four years. On admission to the hospital she was passing over four liters of urine of a specific gravity of 1030 and containing 2.97 of sugar. With the onset of a mild pneumonia the amount of sugar rapidly dropped and acetone disappeared from the uriae. During convalescence, the amount of sugar was further decreased and finally it completely disappeared. After three months of observation it had not returned, and it failed to reappear even after the administration of 100 grams of grape sugar.