of small round cells varying somewhat in size, some cells contained two or three nuclei. Nuclei were rich in chromatin. No mitosis. There were a very few, fine fibrillæ between the cells. There were numerous, thin-walled blood vessels. In parts bone absorption, in parts new formation of bone is shown. He states that the tumour cells are allied to plasma cells.

McCallum[7], in 1901, describes a condition of multiple medullary tumours of bones of trunk and of femur. Here tumour cells vary in shape, have one to three nuclei, and contain vacuoles. Nucleoli are nearly always present. Chromatin varies in amount. There is no mitosis to be seen. Cells lie separated by a fine fibrous stroma. There are numerous thin-walled vessels. From the appearance of the nuclei he states that the tumour cells are derived from the myelocytes or proper marrow cells.

In review, one sees that in the disease termed "multiple myeloma" the course may run from two to eight years. Fever may or may not be present. Albumose in urine is not constant. There may be marked changes in the cellular constituents of the blood, or there may be only slight diminution of the hæmoglobin. The cells of the tumours may be uniform in size with a small amount of protoplasm, or may vary in size with a relatively large amount containing vacuoles. Nuclei may be single or multiple, may be vesicular or rich in chromatin. The intercellular substance may be marked and consist of fine fibrillæ, a homogenous matrix, or may be absent. Cells may be arranged directly around large blood spaces, or there may be numerous, thin-walled blood-vessels. Bone absorption is always present, but formation of osseous or osteoid tissue may or may not be seen.

The constant features are :—The simultaneous occurrence of tissue resembling that of a round-celled sarcoma in the medulla of several bones. Adjacent bones are the ones usually affected.

The complete absence of involvement of other tissue than bone, except by direct continuity of growth of bony tumour into surrounding structures, that is, metastases are not found.

The regularity of size and shape of cell and the small amount of intercellular matrix.

For these reasons the above condition is termed one of multiple myeloma, as suggested by Professor Adami from a section of a small portion of the bone, removed for diagnosis previous to operation.

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