Multiple myeloma is a malignant plasma-cell disorder with a mean age at presentation of 66 years. It is an extremely rare entity for the pediatric population. This is the report of an 11 year old boy who was admitted to the pediatric department due to anaemia, hyperuricaemia and hypercalcaemia. There was a report of epistaxis and mild transaminitis during the preceding ten days. On admission laboratory results showed Hb 8.6 gr/dl, reticulocytes 1.5%, normal PLT and WBC, Ca 12.8 mg/dl, uric acid 14.5 mg/dl, LDH 2979 U/l, ESR 80 mm/hr. PTH was suppressed with normal 25vitaminD3. Initial bone marrow examination was inconclusive and was soon followed by a trephine biopsy which revealed diffuse malignant infiltration of the bone marrow (bone marrow plasma cells 10%). Immunoassay revealed λ light chain presence, setting a strong suspicion of plasma-cell malignancy. Immunofixation and urine electrophoresis confirmed the presence of a monoclonal paraprotein of λ light chain type. End organ damage (kidneys) was proven by increased protein concentration in 24-hour urine collection and increased urine β2-microglobulin. In the meanwhile the patient started to complain of bone pain and MRI confirmed the presence of femur lesions. Based on these results and the rarity of the case the patient was referred to a pediatric oncology specialist center for further investigation and management. In conclusion, however rare, multiple myeloma may present in childhood and should be considered when no other diagnosis seems possible.