enhancement was observed in the right lateral wall of the sphenoid sinus, which was in close proximity to the right cavernous sinus and caused contrast retention at these levels, extending into the subcutaneous adipose tissue of the right temporal region. The right globe appeared exophthalmic. Simultaneous laboratory parameters were normal, with a beta-2 microglobulin level of 1.65 mg/L and LDH of 180 U/L. An F-18 PET-CT scan showed irregular soft tissue densities in the right maxillary region exhibiting hypermetabolism (primary disease). Several lymph nodes in the right cervical chain showed relative hypermetabolism (possible metastasis). The treatment plan was decided upon in consultation with the ear, nose, and throat and neurosurgery departments regarding potential involvement of the central nervous system. **Discussion:** Non-Hodgkin's lymphomas comprise a varied group of malignancies that primarily affect lymph nodes. Extranodal NHL represents approximately 20-30% of all reported cases. Among the extranodal sites, the head and neck region is the second most frequently involved area, after the gastrointestinal tract. Intraoral non-Hodgkin lymphoma accounts for only 0.1% to 5% of all cases. In summary, our case emphasizes the importance of considering lymphomas in the differential diagnosis of rare malignant lesions in the oral cavity. It is believed that prompt referral for histopathological and immunohistochemical examinations can facilitate early diagnosis and appropriate treatment.

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## EXTREME NORMOBLASTOSIS IN A THALASSAEMIA INTERMEDIA PATIENT POST-SPLENECTOMY: THE ROLE OF FLOW CYTOMETRY IN DIAGNOSIS AND MANAGEMENT

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**Background:** Thalassaemia intermedia is characterized by inefficient red blood cell production (erythropoiesis) and has a wide range of clinical symptoms. Splenectomy, often performed to manage complications, can lead to significant long-term changes in blood cell composition. This case illustrates a striking example of extreme normoblastosis in a patient two decades after a splenectomy. The case also underscores the critical role of flow cytometry in diagnosing blood disorders and differentiating abnormal findings from potential malignancies. **Case Report:** A 45-year-old woman with thalassaemia intermedia, who had her spleen removed at age 25, presented with severe anaemia, iron overload, and an unusually high normoblast count ranging from 50,000 to 100,000 cells/$\mu$L, as seen in a routine complete blood count (CBC). The CBC mistakenly identified the normoblasts as white blood cells, raising concern for possible blood cancer. Closer analysis of the CBC sub-parameters revealed an increased nucleated red blood cell (NRBC) ratio. Further investigation through bone marrow biopsy and flow cytometry was undertaken to rule out malignancy and better understand the extreme normoblastosis. **Methodology:** The diagnostic process involved multiple stages of flow cytometric analysis. First, a chronic lymphocytic leukaemia (CLL) panel was employed, followed by an acute leukaemia panel. Finally, a specialized flow cytometry panel targeting markers such as CD45, CD71, CD41, CD235a, CD19, CD10, CD13, HLA DR, CD36, CD38, and CD117 was used. The gating strategy focused on differentiating erythroid precursor cells based on their size, granularity, and marker expression. **Results:** Flow cytometry identified a significantly elevated population of normoblasts, with these cells displaying low CD45 expression and reduced side scatter. They tested weakly positive for CD71, strongly positive for CD36, and negative for CD235a, confirming their identity as erythroid precursors. Around 70% of the nucleated cells consisted of these normoblasts, representing various stages of erythroid maturation. The absence of lymphoid markers (CD19, CD10, CD5) ruled out lymphoid malignancies, while the exclusion of myeloid malignancies was confirmed through negative results for markers such as CD13, CD33, CD34, CD117, and HLA DR. **Discussion:** This case highlights the occurrence of extreme normoblastosis in a post-splenectomy patient and the challenges in managing such cases. It demonstrated that flow cytometry is essential for accurately identifying erythroid precursors, preventing a misdiagnosis of malignancy based solely on CBC results. The findings underscore the value of flow cytometry in evaluating complex haematological conditions, especially in patients with thalassaemia intermedia after splenectomy. Additionally, the strategic order of tests in the flow cytometry lab, along with collaboration between laboratory and clinical teams, was key to achieving a correct diagnosis. This case reinforces the need for a tailored flow cytometric testing algorithm for complex cases.

**Keywords:** Thalassaemia intermedia, Normoblastosis, Splenectomy, Flow cytometry, Haematological malignancies.

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## BLINATUMOMAB BRIDGING THERAPY FOR EFFECTIVE MANAGEMENT OF MRD IN PRO-B ALL WITH CNS INVOLVEMENT: A CASE REPORT OF POST TRANSPLANT PATIENT AT 23 MONTHS AFTER ALLOGENIC HEMATOPOIETIC CELL TRANSPLANTATION

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**Objective:** Pro-B ALL is an unusual and highly malignant form of ALL often presenting with CNS involvement. The involvement of the CNS makes the central objective of these treatments that is attaining and maintaining remission more challenging. This is a report of Pro-B ALL of a 52-year old female who had a CNS involvement and received blinatumomab both as bridge to allo -HSCT and post transplantation consolidation for MRD positivity. Case Report This 52 year old female is presented with Pro-B ALL. Standard chemotherapy was complicated by intracranial extension of the disease. The patient was positive for the Philadelphia chromosome with BCR-ABL (9;22) translocation hence dasatinib was added. Intrathecal therapy of blinatumomab was used as well due to infiltration of cytokines in the central nervous system. Following several sessions of treamtnet, complete remission including of central nervous system was achieved. Afterall the patient was to receive matche allo-HSCT post which clinical stabilization was ascertained. However bone marrow aspiration, biopsy and flow cytometry showed that there was persistence of MRD. However the patient had blinatumoma as targeted therapy. **Discussion:** This case illustrates the effective use of blinatumomab in managing Pro-B ALL with CNS involvement, particularly in the post-transplant setting. CNS involvement complicates treatment due to the blood-brain barrier, requiring targeted intrathecal therapy alongside systemic chemotherapy. Blinatumomab played a crucial role as a bridging therapy to allo-HSCT and in addressing MRD post-transplant, significantly reducing the risk of relapse. This case demonstrates that blinatumomab can effectively target MRD, even in patients with CNS involvement, contributing to better disease control and outcomes.

**Keywords:** Acute Lymphoblastic Leukemia Pro-B, Central Nervous System Involvement, Blinatumomab, Allogeneic Stem Cell Transplantation, Minimal Residual Disease.

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## CARCINOID SYNDROME PRESENTING AS AN ELEVATED 5-HIAA IN A PATIENT EVALUATED FOR AN ELEVATED WBC COUNT: BEWARE OF THE POSSIBLE DIAGNOSTIC DIFFICULTY.

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**Introduction:** Carcinoid syndrome is an extremely rare paraneoplastic disorder associated with serotonin-secreting neuroendocrine tumors, which classically present with flushing, weight loss, hypertension, and gastrointestinal complaints. In fact, symptoms are often nonspecific, and the presentation could promote confusion with hematologic or inflammatory diseases. Early diagnosis is of great importance in allowing proper therapy to avoid delays. **Case Report:** A 45-year-old female was referred to the hematology clinic owing to high WBC count (21,000/$\mu$L), associated with fatigue, flushing, and unintentional weight loss of 10 kg over the past 3-4 months. Her history included hypothyroidism on thyroxin and asthma —both on symptomatic medications. Gastroenterology workups, including endoscopy, showed mild antral gastritis and a hiatal hernia but no evidence of malignancy. Thus, the imaging studies demonstrated a low-density nodule measuring 1 cm in size on the right adrenal gland, hence the suspicion of a neuroendocrine tumor. Excess serotonin production was confirmed by demonstrating a 24-hour urinary 5-HIAA level of 18.7 mg/day, with a reference range being 2-9 mg/day, compatible with carcinoid syndrome. Confirmatory Ga-68 DOTA-TATE PET-CT revealed moderate increased somatostatin receptor expression in the adrenal lesion. No anemia or other hematologic disorders were observed, despite the initial suspicion of one. **Discussion:** This case highlights carcinoid syndrome as a potential cause of systemic symptoms such as flushing, weight loss, and leukocytosis, even in cases referred for suspected hematologic conditions. Confirmation was based on the elevated level of 5-HIAA and advanced imaging with Ga-68 DOTA-TATE PET-CT. This report emphasizes the need for interdisciplinary collaboration between hematology, endocrinology and oncology for managing complex systemic cases. Early diagnosis of carcinoid syndrome ensures appropriate care, prevents misdiagnosis, and improves outcomes.

**Keywords:** Carcinoid Syndrome, Neuroendocrine Tumor, 5-HIAA, Flushing, Leukocytosis.

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## MYCOSIS FUNGOIDES PROGRESSING TO PERIPHERAL T-CELL LYMPHOMA AND THE POTENTIAL ROLE OF ROMIDEPSIN THERAPY

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**Introduction:** PTCL-NOS is an uncommon and highly aggressive kind of non-Hodgkin lymphoma. Transformation of MF, a cutaneous T-cell lymphoma, into systemic PTCL is infrequent and poses serious challenges both diagnostically and therapeutically. This report describes the challenges in diagnosis and therapy of a transformation case from MF to PTCL which responded to romidepsin. **Case Report:** A 58-year-old male presented to the OPD in the year 2022 with complaints