

anemia was 66.0%, 81.4% and 86.3 % respectively ($P=0.5$). While, in IST group OS for moderately severe, severe and very severe aplastic anemia was 93.8%, 86.6% and 56.1 % respectively ($P=0.005$). Age of 20 years or under positively affected overall survival in allogenic hematopoietic stem cell transplantation group, whereas age more than 20 years negatively affected overall survival in this group. The factors influencing the overall survival were use of allo-SCT, an age under 20-years-and moderately severe AA. **Conclusion:** Aplastic anemia in adolescents has a very good outcome. If a matched sibling donor is available, Hematopoietic stem cell transplantation is the first choice treatment. If such a donor is not available, immunosuppressive treatment may still be an acceptable second choice also because, in case of failure, hematopoietic stem cell transplantation is a very good rescue option. Use of SCT, age of < 20 years in sever AA and IST in non-severe AA were favorably associated to OS. Therefore, younger age SAA patients, with HLA-matched donors, may benefit more from allo-SCT.

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OP 13

GLOBAL RESEARCH PATTERNS ON BLOOD DONOR DEFERRAL: AN ANALYSIS OF THEMES, TRENDS, AND INFLUENCE

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Background: Blood banking relies heavily on deferral policies for safety. Recognizing current academic themes can highlight research opportunities, encourage collaboration, ensure funding, understand audience interests, steer public sentiment, and inspire productive competition, thereby prompting impactful studies. **Materials and Methods:** We analyzed 1034 blood deferral papers from Web of Science and Scopus, focusing on publication count, uniqueness, timeline, and themes like Men who have Sex with Men (MSM), HIV, COVID-19, anemia, and machine learning. We also assessed the global distribution of these studies to understand prevalence and associations with geography, demographics, and economic factors. **Results and Conclusions:** The study uncovered 1037 articles; MSM (107), HIV (234), Anemia (201), COVID-19 (40), and machine learning (59). Most papers were from the US, UK, Canada, reflecting their robust research capabilities. The US led in HIV and anemia studies, with India significantly contributing to anemia research. India led in COVID-19 studies,

with substantial participation from the US. Machine learning research primarily came from the US and India, with significant Chinese contributions. The trending literature on blood deferral underscores the need to comprehend evolving blood banking dynamics. Machine learning, with its transformative capacity, is a prime research area. These insights could guide future studies and policymaking, maintaining blood safety.

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OP 14

UNUSUAL PRESENTATION OF RHABDOMYOSARCOMA WITH BONE MARROW INVOLVEMENT AND CERVICAL MASS: A 17-YEAR-OLD FEMALE CASE REPORT

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Background: Rhabdomyosarcoma (RMS) is a rare type of cancer that originates in the skeletal muscle cells. It's most commonly found in children but can occur at any age. The cancer is characterized by the presence of cells that resemble immature muscle cells, and it can grow and spread rapidly. Rhabdomyosarcoma (RMS) is a rare cancer that originates in skeletal muscle cells and can be found in various parts of the body, including the head and neck, genitourinary tract, extremities, and other less common areas such as the trunk and retroperitoneum. Bone marrow infiltration in Rhabdomyosarcoma (RMS) is a relatively rare occurrence. We are presenting a case Rhabdomyosarcoma with Bone Marrow Involvement and cervical Mass. **Case Report:** A 17-year-old female patient with no known previous illnesses presented to an external center with complaints of coughing, difficulty swallowing, weight loss, and fatigue that had begun a month prior. During a physical examination, a 2 cm mass was observed in the left cervical region, along with an enlarged appearance of the thyroid gland. Complete blood count revealed hemoglobin at 10.6 g/dL, leukocytes at 1000 mm³, neutrophils at 200 mm³, and platelets at 70000 mm³, leading to a referral to a hematology clinic. Upon repeated observation of pancytopenia, early myeloid precursors were seen in a peripheral smear. Due to a high suspicion of lymphoma, a bone marrow biopsy was performed, revealing widespread mononuclear cell infiltration. Immunohistochemical analysis showed desmin(+), myogenin (+), and Ki67 80% positivity, leading to a diagnosis of rhabdomyosarcoma. A PET-CT scan to determine the extent of the