**Original article:**

**Dysplastic neutrophils on peripheral blood smear –hematological finding in HIV infection”**

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**Abstract:**

**Introduction:** Our aim was to identify the haematological manifestations (Peripheral smear) of altered haematopoiesis resulting from HIV infection .Review the pathogenesis of the haematological manifestations of human immunodeficiency virus (HIV).

**Method**: Blood was collected in a sterile EDTA containing tube and processed following our established laboratory protocol and by universal precaution as per the guideline of National aids control organization (NACO, India). A complete blood counting including HB%, PCV, Red cell indices ,platelet count and total white cell count and differential was done by Automated blood cell counter analyzer of all the patient on antiretroviral therapy. The all cell count indices including WBC count with differential and platelet count, was further confirmed by manual oil immersion smear study method. Peripheral smears study was done with field A and B Stain and Leishman stain.

**Result:** In our 300 study cases, 291 case (97.00% n=300) show presence of detached nuclear fragment, in case of females 109 case (97.32% n=112) while in males182 cases (96.80% n=188) show detached nuclear fragment. Least common significant finding of our study is neutropenia. In our study 14 cases (4.6%) n=300 shows Neutropenia in which 10 cases are males (5.31%,n=188) and 4 cases are females (3.57% n=112)

**Conclusion**:In our study detached nuclear fragment is most common finding of dysplastic neutrophils and least common finding is Neutropenia**. (**Presence of Detached Nuclear Fragment**>**CytoplasmicVacuolation,> ToxicGranulation/Dohlebody, >Hypo granularity and occasional Pelger huet form>Left Shift>Neutropenia)

**Keywords:** Neutropenia, HIV infection