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Commentary

An Overview on Polycythemia its Types and Symptoms

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INTRODUCTION

Polycythemia (otherwise called polycythaemia or polyglobulia) is an illness state in which the hematocrit (the volume level of red platelets in the blood) and additionally hemoglobin focus are raised in fringe blood.

It very well may be because of an increment in the quantity of red blood cells ("outright polycythemia") or to an abatement in the volume of plasma ("relative polycythemia"). Polycythemia is in some cases called erythrocytosis, however the terms are not interchangeable, in light of the fact that polycythemia depicts any expansion in red blood mass (whether or not due to an erythrocytosis), while erythrocytosis is an archived increment of red cell count. The crisis treatment of polycythemia (e.g., in hyperviscosity or apoplexy) is by phlebotomy (expulsion of blood from the dissemination). Contingent upon the hidden reason, phlebotomy may likewise be utilized consistently to lessen the hematocrit. Myelosuppressive prescriptions, for example, hydroxyurea are now and then utilized for long haul the board of polycythemia [1].

TYPES OF POLYCYTHEMIA

Absolute Polycythemia

The overproduction of red platelets might be because of an essential interaction in the bone marrow (a supposed myeloproliferative condition), or it could be a response to persistently low oxygen levels or, infrequently, a danger. On the other hand, extra red platelets might have been gotten through another processfor model, being over-bonded (either coincidentally or, as blood doping, intentionally) or being the beneficiary twin in a pregnancy, going through twin-to-twin bonding condition

Primary Polycythemia

Essential polycythemias are because of elements natural for red cell forerunners. Polycythemia vera (PCV), polycythemia rubra vera (PRV), or erythremia, happens when abundance red platelets are created because of an irregularity of the bone marrow [2]. Often, overabundance white platelets and platelets are additionally delivered. PCV is delegated a myeloproliferative sickness. Manifestations incorporate cerebral pains and dizziness, and signs on actual assessment incorporate an unusually amplified spleen as well as liver. Now and again, impacted people might have related conditions including hypertension or arrangement of blood clusters. Change to intense leukemia is uncommon. Phlebotomy is the backbone of treatment. A sign of polycythemia is a raised hematocrit, with Hct > 55% seen in 83% of cases. A substantial (non-genetic) transformation (V617F) in the JAK2 quality, likewise present in other myeloproliferative problems, is seen as in 95% of cases.

Essential familial polycythemia, otherwise called essential familial and intrinsic polycythemia (PFCP), exists as a harmless genetic condition, interestingly, with the myeloproliferative changes related with obtained PCV.

Secondary Polycythemia

Secondary polycythemia is brought about by one or the other regular or counterfeit expansions in the creation of erythropoietin, thus an expanded creation of erythrocytes. In secondary polycythemia, 6 to 8 million and infrequently 9 million erythrocytes might happen per cubic millimeter of blood. Secondary polycythemia settle when the basic reason is dealt with [3].

SYMPTOMS

Specialists say that patients may not encounter in any striking indication of PV until the late stages. Albeit obscure, these side effects may assist patients with finding support in the early long periods of the movement.

1. Severe headache
2. Dizziness, fatigue, and tiredness
3. Unusual bleeding, nosebleeds
4. Pain
5. Itchiness
6. Numbness or tingling in different body parts [4].

REFERENCES

1. Tefferi A, Vardiman JW. Classification and diagnosis of myeloproliferative neoplasms: the 2008 World Health Organization criteria and point-of-care diagnostic algorithms. Leukemia. 2008; 22:14–22.
2. Spivak JL. Polycythemia vera: myths, mechanisms, and management. Blood. 2002; 100:4272–4290.

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3. Kumar C, Purandare AV, Lee FY, Lorenzi MV. Kinase drug discovery approaches in chronic myeloproliferative disorders. Oncogene. 2009; 28:2305–2313.

4. Barbui T, Finazzi MC, Finazzi G. Front-line therapy in polycythemia vera and essential thrombocythemia. Blood Rev. 2012; 26:205–211.