Laboratory features 12 POLYCYTHAEMIA RUBRA VERA oBone marrow is hypercellular with prominent megakaryocytes, iron stores are depleted because of excessive iron incorporation into red cells and the trephine biopsy may show mildly increased reticulin.oSecondary or reactive polycythaemia may occur in conditions where arterial oxygen saturation is reduced, leading to a physiological rise in serum EPO, or when EPO levels are inappropriately raised (e.g. caused by secretion of EPO by a renal neoplasm or other turmour). Differential diagnosis 14 POLYCYTHAEMIA RUBRA VERA oThrombosis is the main cause of morbidity and mortality and its incidence can be reduced by maintaining the PCV below 0.45 and platelets below 600 x 109 /L.oCulture of peripheral blood cells shows spontaneous formation of .erythroid colonies in the absence of exogenous EPO