MYTHS & FACTS

…About polycythemia vera

BY BECKY LIEN MUNSON, RN

MYTH: A crisis condition, polycythemia vera develops when spleen injury prevents normal destruction of old red blood cells (RBCs).

FACT: Polycythemia vera, or excess production of RBCs, white blood cells (WBCs), and platelets by the bone marrow, develops slowly. The cause of this chronic myeloproliferative disorder isn’t known, but may be related to abnormal stem cells.

MYTH: Bone marrow testing is required to diagnose polycythemia vera.

FACT: Bone marrow testing can confirm the diagnosis, but this invasive test usually isn’t necessary. In most cases, the diagnosis is based on symptoms and history, physical exam, and a simple complete blood cell count showing RBC volume greater than 36 ml/kg in men and 32 ml/kg in women. Other lab results pointing to polycythemia vera include SaO2 greater than 92%, platelet count greater than 400,000/mm³, WBC count greater than 12,000/mm³ without infection, and increased serum vitamin B12 levels with a leukocyte alkaline phosphatase level greater than 100 units/liter. On physical exam, 75% of patients have enlarged spleens and 30% have enlarged livers.

MYTH: The patient’s first complaint is usually abdominal pain from an enlarged spleen and liver.

FACT: Spleen and liver enlargement occur slowly over 2 to 10 years, giving abdominal organs time to accommodate the enlargement, so pain may not occur until later in the disease.

MYTH: Aggressive chemotherapy is the treatment of choice for polycythemia vera.

FACT: Initially, the treatment of choice is phlebotomy to remove 1 pint/week of blood until the patient’s hematocrit level drops below 45% in white men or 42% in women and black men. Aggressive chemotherapy to suppress bone marrow production is no longer recommended because it significantly increases the patient’s risk of leukemia. Aspirin therapy may be prescribed to decrease viscosity, but the benefits must be weighed against the increased risk of gastrointestinal bleeding.

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