

In the last decade, nodular diseases of the thyroid gland has become an important subject for most of the surgeons and clinicians, trying to reach a proper early detection yielding a preferable outcomes, the study done to evaluate the diagnostic performance of Power Doppler sonography in detecting the nature of thyroid nodules, correlated with fine needle aspiration (FNA) results, helping in the differentiation of their benign from malignant behavior, a total of 200 patients with thyroid nodular disease, age ranging (18 – 69) years, (176 females, 34 males) referred to the radiological department in Azadi teaching hospital, examined by grey scale, color and power Doppler ultrasound; correlation with FNA was done to all nodules, Doppler Ultrasonography is helpful in comparison with FNA results; in the diagnosis of the nature of thyroid nodules, peripheral Doppler vascular arrangements seen more in the benign nodules while central distribution was seen more in the malignant ones.