

Reliability of signs and symptoms in the diagnosis of thyrotoxicosis in Nigeria.

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Background:

Thyroid dysfunction is an important endocrine problem in Nigeria of which some of its features are not specific to thyroid disease alone. A laboratory work-up is therefore necessary in confirming the diagnosis. Previous attempts in using the Wayne's index in making a diagnosis was cumbersome and time consuming.

Aim:

To determine the reliability of signs and symptoms in diagnosing thyrotoxicosis.

Method:

Forty patients were recruited for this study of which 36 were biochemically confirmed to have thyrotoxicosis (low thyroid stimulating hormone and elevated thyroxine) while 4 were normal. The top four signs and symptoms were identified in the toxic patients and a combination of any two symptoms and one sign from the identified top signs and symptoms was used as a screening test to identify patients with thyrotoxicosis. The sensitivity, specificity, positive and negative predictive values were calculated.

Results:

Top four symptoms were: 1. Excessive sweating 2. Heat intolerance 3. Palpitation and 4. Weight loss. The top four signs were: 1. Tachycardia 2. Exophthalmos 3. Moist palms and 4. Fine tremors of the hands.

BIOCHEMICAL DIAGNOSIS				
		YES	NO	TOTAL
2 symptoms plus one sign	YES	17	2	19
	NO	19	2	21
		36	4	40

Sensitivity =47.2%, Specificity =50.0%, Positive predictive value=89.5%,
Negative predictive value =9.5%.

Conclusions:

The biochemical diagnosis is an important tool in the confirmation and monitoring of thyrotoxicosis. A combination of the above signs and symptoms can be used as an initial screening test in identifying persons likely to have thyrotoxicosis because of its high positive predictive value. This approach is shorter and simpler than the Wayne's index and can be used even at the primary and secondary health care levels.