

Thyrotoxicosis in Eastern Cape Blacks

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SUMMARY

A prospective study of 32 cases of thyrotoxicosis in Blacks of the Eastern Cape seen over a 33-month period, suggests that thyrotoxicosis in this group is not as uncommon as previously reported in studies from other parts of Africa. Clinical features were similar to those seen in other races. Immunological studies confirmed the low incidence of auto-antibodies. The tendency towards urbanisation of Blacks may account for the increased incidence noted.

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Thyrotoxicosis, as illustrated by studies in various parts of Africa, is stated to be uncommon in the indigenous African population.¹⁻⁵ The only previous study of thyrotoxicosis in South African Blacks was recorded by Dancaster,³ who documented 18 cases seen over a 10-year period. Our study was undertaken because our impression was that thyrotoxicosis was not uncommon in the Black population of the Eastern Cape region of South Africa. A prospective inpatient study of all cases seen at Livingstone Hospital was undertaken to assess the relative incidence of thyrotoxicosis in Eastern Cape Blacks. The population served by Livingstone Hospital (a 1 000-bed hospital situated in Port Elizabeth) is the non-White population of the Eastern Cape Province and Eastern Karoo. Medical admissions annually number 2 800, of whom Blacks constitute approximately 70%. We report on 32 cases of thyrotoxicosis seen in Black patients.

PATIENTS AND METHODS

Over a 33-month period (November 1971 to July 1973) 32 Black patients with thyrotoxicosis were seen and studied. Total Black admissions over the same period numbered 5 400, giving an incidence of 1 in 169, or 0.6% of medical admissions. Coloured and Indian admissions during this period totalled 2 300, also with 32 cases of thyrotoxicosis (30 Coloured, 2 Indian) i.e. an incidence of 1 in 72, or 1.4% of medical admissions.

Thyrotoxicosis was diagnosed clinically by the Wayne index⁶ and confirmed by the usual laboratory investigations. Immunological studies for antithyroglobulin were performed in all cases by the Agar gel diffusion precipitin method, and in addition by either the tanned red cell haemagglutination method or Latex test (Burroughs Wellcome Kit Method). Antithyroglobulin was detected only in 2 Black patients and in 1 Coloured patient.

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CLINICAL FEATURES

Thirty-two cases were seen, 27 of whom were patients with Graves' disease and 5 with toxic multinodular goitre. The sex distribution was 29 females and 3 males. The age distribution ranged from 11 to 59 years, with most cases occurring between 20 and 40 years. Exophthalmos was noted in 11 cases. A bruit was heard over the thyroid gland in 21 cases. Cardiac features included overt cardiac failure in 4 cases, with atrial fibrillation present in 1. Clinically assessed myopathy involving the shoulder and pelvic girdle muscles varied from mild to severe weakness in 20 cases. In some cases severe myopathy was the presenting feature. Pretibial myxoedema was not seen in any of the cases.

DISCUSSION

Our study suggests that thyrotoxicosis in Blacks of the Eastern Cape is not as uncommon as recorded in other parts of Africa.¹⁻⁵

In the only other South African study, Dancaster³ found that thyrotoxicosis in Blacks was rare (incidence 1 in 4 000 of medical admissions, or 0.024%) and that the majority of his patients were from rural areas. We found a much higher incidence (1 in 169 of medical admissions, or 0.6%). All our Black patients could be regarded as having been urbanised to a greater or lesser degree, with the majority coming from Port Elizabeth, and the remainder from smaller towns in the Eastern Cape. The increasing tendency towards urbanisation of Blacks could account for the increased incidence of thyrotoxicosis noted.

Clinically we found no apparent difference in thyrotoxicosis in Blacks compared with the Coloured and Indian patients, with the exception that clinical myopathy was more common and in a few cases dominated the clinical symptomatology. This could be explained by the relatively later presentation of Black patients for treatment.

Immunological studies performed on African thyrotoxicosis by McGill⁷ indicated a low incidence of thyroid auto-antibodies—our study confirms this.

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