

## VITILIGO AND ABNORMAL GLUCOSE TOLERANCE TEST

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## Summary

In a series of 156 vitiligo patients, an abnormal glucose tolerance test was detected in 7.7% compared to 2.4% in the control series.

Increased incidence of Vitiligo was reported among mature onset diabetics compared to controls and in more than half of such patients with diabetes and vitiligo, Vitiligo preceded diabetes<sup>1</sup>. Dawber et al<sup>2</sup> in a group of vitiligo patients with no personal or family history of diabetes found a significant association between Vitiligo and pre-diabetes. Present study was undertaken to find out the prevalence of abnormal Glucose tolerance test in vitiligo patients.

## Material and Methods :

156 patients with vitiligo were the subjects of this study. No known diabetic patient was included. At the time of the test, none of these patients was on steroids, diuretics, or oral contraceptives. None had liver disease. Blood sugar estimation was done by the method of Folin and Wu<sup>3</sup> and the curves were interpreted by Conn and Fajan's<sup>4</sup> criteria. Patients' ages varied from 10-60 years. Fifty five were males and 101 females. A total of 12 patients (7.7%) had an abnormal Glucose tolerance test. (Table).

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TABLE

Showing age distribution of 156 patients with their diabetic status

Age in years	Total No. of cases		Abnormal GTT	
	Male	Female	Male	Female
0 — 10	11	25	—	—
11 — 20	19	45	—	2
21 — 30	18	19	1	2
31 — 40	5	6	3	4
41 — 50	2	4	—	—
51 — 60	—	2	—	—

## Comments :

Vitiligo is one of the most common pigmentary skin disorders and accounts for more than 4% of skin diseases in India<sup>5</sup>. Its etiology remains largely obscure, although the condition is thought to be a genetically transmitted autosomal dominant disorder with an available positive family history in about 40% cases<sup>5</sup>. Clinical and experimental work have led to the hypothesis that vitiligo is either neurogenic in origin or an autoimmune disorder<sup>6</sup>. Autoimmune hypothesis is based mainly on the clinical association of this disorder with a number of diseases also believed to be autoimmune in etiology e. g. hyperthyroidism, pernicious anaemia, Addisons disease, idiopathic hypoparathyroidism, alopecia areata and diabetes mellitus. This view is further supported by the increased formation of organ-specific antibodies to thyroid,

gastric and adrenal tissue<sup>7</sup> and reported presence of antimelanin antibodies in the serum of vitiligo patients<sup>8</sup>.

Present work showing an increased percentage of abnormal glucose tolerance test (7.7%) compared to 2.4% in control series<sup>9</sup> indicates statistically significant association between vitiligo and disturbed carbohydrate metabolism (diabetes mellitus).

REFERENCES

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TRUE

Delayed hypersensitivity is mediated by T cells. Patients with SLE may have a functional defect of T cells or a defect localised to a subpopulation of these lymphocytes. Significantly diminished blast transformation as measured by thymidine uptake has been reported when lymphocytes from lupus patients were incubated with phytohemagglutinin, streptokinase-streptodornase, tuberculin purified protein derivative and candida extract.

Reference : Brunner CM and Davis JS : Immune mechanisms in the pathogenesis of systemic lupus erythematosus, Bull Rheumatic Dis, 26 : 854, 1975-76 series.