

# DISCORDANT DOWN'S SYNDROME IN DIZYGOTIC TWINS

(A Case Report)

by

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## Introduction

Down's syndrome is frequently seen in India. The incidence of Down's syndrome in India is reported as 1.2/1000 as compared to 1.5/1000 in Western countries (Verma *et al* 1979). Incidence of

mother was 46 years and 42 years respectively when the twins were born. The mother had given birth to 3 children before this delivery. All were males and completely normal physically as well as mentally. Last delivery had taken place 13 years back. There was no history of miscarriage or still birth. The details of the two twins are as follows:

	Twin I	Twin II
Sex	Female	Female
Blood group	A	O
Gestation	32-34 weeks	32-34 weeks
Weight	1800 gms.	2500 gms.
Height	44 cms.	47 cms.
Head circumference	29 cms.	33 cms.
Chest circumference	27 cms.	30 cms.
Presentation	Vertex	Vertex
Congenital anomaly	Down's syndrome	nil

Down's syndrome in twin births is not known in our country and as far as known to the authors there have been no reports. We report here a case of twin births in which one child had Down's syndrome.

## CASE REPORT

The parents of the twins were not related before marriage. The age of the father and

The first twin had a brachycephalic skull, downward slant of eyes, depressed bridge of nose, high arched palate, bilateral sandal gap, bilateral incurving of little finger and a single umbilical artery. Heart was normal. Dermatoglyphic patterns showed bilateral simian crease, ulnar loops in 8 fingers and the sum of atd angle on both sides was 142°. Child remained healthy for 10 days after which she was discharged (Figure 1). The second twin was normal and her neonatal period was eventless. The placentae of these 2 twins were separate and there were 2 chorions and 2 amnions. The blood groups were different, hence they were considered to be dizygotic. However chromosomal studies could not be done.

## Discussion

The incidence of both dizygotic twins

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Down's syndrome increase with advanced maternal age with the highest frequency of dizygotic twins occurring between the age group 37 to 40 years. This incidence is reported as 1 in 60 for caucasian pregnancies as compared with an overall occurrence for all maternal age ranges of approximately 1 in 1000 pregnancies (Fielding and Walker, 1972). The frequency of Down's syndrome births at maternal age 40 is reported to be as high as 3.4 per cent (Milunsky, 1976). Thus the event of Down syndrome in one of dizygotic twins at the maternal age of 40 years could be expected in approximately 1 in 900 (Filkins *et al*, 1978).

It is rare for both members of a twin pair to be concordant for Down syndrome. When twins have been monozygotic both have always been affected. In contrast dizygotic twins in majority of the cases have been discordant for Down's syndrome. According to Lilienfield (1969) among monozygotic twins there is about 90 to 95 per cent concordance of Down's

syndrome, while among dizygotic twins there is about 10 per cent concordance.

Looking at the above data though Down's anomaly in dizygotic twins is not very rare, but we report this case in view of the paucity of reports.

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See Fig. on Art Paper III