

# ABO BLOOD GROUPING IN TROPHOBLASTIC NEOPLASIA

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The association of trophoblastic neoplasia and blood group 'A' was observed by Scott (1962) and Bagshawe *et al* (1971) in Great Britain. This correlation has not been observed in study from mid western united states (Mittal *et al* 1975), suggesting that it may be just a regional variation. Further Tomoda *et al* (1976) have also not found any correlation of ABO grouping and trophoblastic neoplasia.

## Results

In eight out of 12 cases (66.66%) of choriocarcinoma and 16 out of 34 cases (47.05%) of vesicular mole, wife had blood group 'A', whereas in pregnant controls, there were 26 out of 40 cases and in non-pregnant 18 out of 40 had blood group 'B'. There was no significant combination of blood group of wife and husband. The distribution of blood groups is shown in Table I.

TABLE I  
Distribution of ABO Blood Groups among Patients and Controls

Cases (n)	'A'	'B'	'AB'	'O'
Choriocarcinoma (12)	8 (66.66%)	2 (16.66%)	—	2 (16.66%)
Vesicular mole (34)	16 (47.05%)	6 (17.65%)	2 (5.89%)	10 (29.41%)
Pregnant (40)	8 (20.00%)	26 (65.00%)	2 (5.00%)	4 (10.00%)
Non-pregnant (40)	14 (35.00%)	18 (45.00%)	—	8 (20.00%)

## Material and Methods

This study was carried out on 12 cases of choriocarcinoma and 34 cases of vesicular mols. Forty cases of normal pregnant women and 40 non-pregnant cases were taken as control. Apart from the clinical history and examination and other investigation; ABO blood grouping was done for both husband and wife in all cases.

## Discussion

Our finding that blood group 'A' is common in trophoblastic neoplasia corroborates with previous reports of Scott (1962) and Bagshawe (1971) but as pointed out by Mittal *et al* (1975) that is may be just a regional variation. Llewellyn-Jones (1967) reported a shift from 'O' towards 'AB' in maternal blood groups. Dawood *et al* (1971) reported increased incidence in blood group 'A' and decreased incidence in blood group 'B' and suggested that it may be due to some enzyme deficiency. All these studies suffered from deficiencies of which the major

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one was the uncontrolled nature of population and so making valid control data very difficult. Bagshawe *et al* (1971) reported on 260 patients with a comparatively controlled population and showed an excessive risk for 'A' blood group females. Furthermore the excessive risk for a group 'A', woman increased 2.4 times if the husband's blood group is 'O' as opposed to 0.4 times with a group 'A' husband. Dawood *et al* (1971) observed that maternal blood group 'AB' appeared to be associated with a poor prognosis. Bagshawe *et al* (1971) showed that a woman with a mole having husband of the same blood group, had less likely chances to go toward malignancy, but Tomoda *et al* (1976) showed patient to be having bad prognosis if both wife and husband had blood group 'A'.

In our study more patients with blood group 'A' had trophoblastic neoplasia, while on an average in general population attending the same hospital, blood group 'B' is common. Next to blood group 'A', the patients were in group 'O' then 'B' and lastly in 'AB'. Our normal control population has the distribution as, maxi-

mum are blood group 'B' then 'A' then 'O' and minimum cases are of 'AB' group. We were not able to elicit any relationship between wife and husband group.

#### Summary

ABO blood grouping was evaluated in trophoblastic neoplasia. Maximum cases were in blood group 'A' as compared to normal population who had maximum percentage of 'B' group. No significant combination of blood group of wife and husband was acceptable.

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