

URINARY TRACT INFECTION AND ANEMIA IN PREGNANCY

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The greater predisposition to anemia of pregnant patients affected by urinary infections (also asymptomatic) ⁽¹⁾ has become commonly recognized.

As complete hemochrome has been a routine examination in pregnancy since many years it goes without saying that all patients showing anemia, though moderate, in pregnancy must undergo urinary cultural examination.

These two diseases in pregnancy are really correlated, according to some Authors ^(2,3) who have found a high prevalence of anemic patients among those with significant bacteriuria, compared with a control group with sterile urine. This difference tends to widen as pregnancy progresses.

Other Authors too ⁽⁴⁾ stress the need for timely and effective urinary disinfection to prevent anemia from worsening as pregnancy progresses.

On the other hand, other Authors ^(5,6,7) have found no significant difference of Hb levels between patients with significant bacteriuria and patients with sterile urine.

MATERIAL AND METHODS

This study concerned 40 pregnant patients showing asymptomatic bacteriuria at the 1st trimester and 20 pregnant patients with sterile urine at the 1st trimester, age range 22 to 34, parity from 0 to 2 previous pregnancies. The patients were all normotensive and free from dysmetabolic diseases. The two groups of patients had a fairly high socio-cultural level, no nutritional problems and satisfactory hygienico-sanitary education.

Asymptomatic bacteriuria was diagnosed in patients presenting positive urinoculture with more than 100,000 colonies per ml in at least two consecutive cultural examinations. Table 1 shows Hb levels at the 1st, 2nd and 3rd trimester respectively, in the two groups of patients.

Group-a patients, affected by asymptomatic bacteriuria, underwent urinary disinfecting therapy. Those who showed relapses or new infections in the following trimester were repeatedly treated with urinary disinfecting therapy.

In either group patients presenting Hb values lower than 11 were treated with systemic folic acid and ferrum per os in cycles throughout pregnancy.

SUMMARY

The Author reports 40 cases of patients affected by asymptomatic bacteriuria at the 1st trimester of pregnancy, assessing changes in their hemoglobine values, and compares them to 20 control patients with sterile urine at the 1st trimester.

No major difference is found in hemoglobine changes between the two groups, probably owing to the repeated parameter controls throughout pregnancy and the continuing treatment undergone by all the affected patients.

Table 1. — Comparison of Hb changes according to gestational age in a group of patients presenting urinary infection and a control group with sterile urines.

	1st trim.	2nd trim.	3rd trim.
Hb > 11	19 (47.5%)	17 (42.5%)	14 (35%)
10 < Hb < 11	21 (52.5%)	23 (57.5%)	19 (47.5%)
Hb < 10	0	0	7 (17.5%)

Hb values in patients with sterile urine. (Tot. cases 20).

	1st trim.	2nd trim.	3rd trim.
Hb > 11	11 (55%)	8 (40%)	8 (40%)
10 < Hb < 11	9 (45%)	12 (60%)	9 (45%)
Hb < 10	0	0	3 (15%)

In the control group 3 patients, or 15%, showed significant bacteriuria at the 2nd trimester and underwent urinary disinfecting therapy.

No acute urinary infection was observed in these patients during their pregnancy.

No significant difference concerning worsening or appearance of anemia was observed, as pregnancy progressed, between the examined sample and the control group.

In the 3rd trimester 7 group-a patients (17.5%) and 3 control-group patients (15%) showed Hb values lower than 10. Only one of them underwent hemotransfusion in puerperium.

CONCLUSIONS

The study of these cases stresses the importance of treating asymptomatic bacteriuria and anemia simultaneously in pregnancy. Thus, the mutual negative influence of these two diseases can be reduced to a minimum and the complications entailed by each individual disease correctly prevented.

The absence of acute urinary infections and the absence of significant increase in the number of cases of serious anemia at the end of pregnancy can be ascribed to the continuing monitoring and the timely and repeated treatments the patients underwent.

However, the non-performance of disinfecting treatment in some of the patients affected by urinary infections to assess any worsening of anemia and vice-versa was regarded as unjustified. Therefore, this evaluation was based on information from the literature, though controversial.

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