THE SHUTE TEST FOR CHECKING UNBALANCE PRODUCED BY LACK OF VITAMIN E

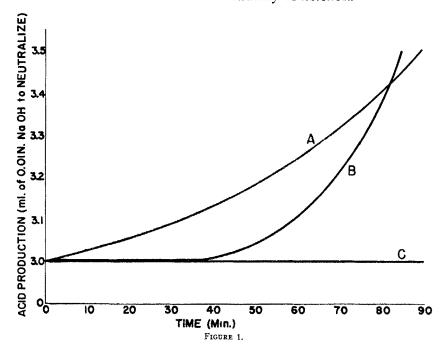
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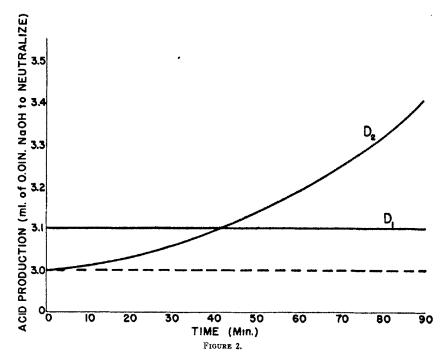
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Evan Shute has demonstrated¹⁻⁴ the presence of an anti-proteolytic factor in the blood serum of aborting women. Such sera, under the action of trypsin, reveal no freeing of acid radicals. Vitamin E, under certain circumstances, corrects this anomaly. In 120 pregnant women studied in the Sao Paulo Maternity Hospital, we have recorded 53 who presented tryptic digestion resistance; that is, they presented positive reactions. The following types of curves (summarized in FIGURES 1 and 2) were obtained by us:

- (A) Curve representing negative Shute test obtained with pregnant women under good nutritional conditions. No resistance to tryptic digestion; Wassermann positive; normal evolution of pregnancy.
- (B) Curve representing an initial resistance period, with unstable vitaminic balance. Digestion proceeded slowly, with some resistance. Pregnancy developed under precarious conditions. There seemed to exist some vitaminic unbalance due to defective nutrition. Delivery at term.
- (C) Positive curve showing complete resistance to digestion indicating lack or unbalance of vitamin E. Precarious condition of nutrition; negative Wassermann, patient poorly nourished, having children with low resistance and premature deaths.
- (D) Curve modified by means of vitamin E administration. Patient showed a poor obstetric history, with positive Wassermann and positive Shute test (curve D1). An anti-luetic treatment and use of vitamin E were prescribed. The latter treatment was stopped by patient after third application, but the anti-luetic treatment continued. There was threatening of abortion, after which the patient visited the medical services. Vitamin E was recommended again. After the sixth injection of vitamin E, a new Shute test was carried out, with negative results (curve D2). Pregnancy continued normally.

A positive Shute reaction in one patient (V.R.) was changed to negative by vitamin E administration, then reversed to positive by stopping vitamin E treatment, then again changed to negative by giving vitamin E.





Conclusions. (1) The Shute test can supply useful data in cases of unbalance of vitamin E. (2) Taking into account the occurrence of abortions in cases of vitamin E unbalance, the Shute test can help clinics. (3) This is not specific, but a guidance test.

Bibliography

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