disease, and that when both conditions are present, the clinical significance of each can be properly evaluated. This report is based on a study of fifty consecutive patients with diaphragmatic hernia. The age range was between 40 and 60 years; a few were younger and some were older. About one-fourth had gastrointestinal complaints alone. A few presented only cardiovascular symptoms. Almost three-fourths of the patients had a combination of dyspepsia, dysphagia, and the like, and such symptoms as pain in the chest, palpitation of the heart, rapid heart rate.

To determine the existence of organic coronary disease, the following clinical examinations were done: teleoröntgenogram, roentgenoscopy, resting electrocardiograms, including Wilson unipolar precordial and extremity leads, the "2-step" exercise electrocardiograms and the 10 per cent anoxemia test. These were correlated with the history, operative findings, post-mortem findings, and clinical follow-up.

We arrived at the conclusion that uncomplicated diaphragmatic hernia gives no objective evidence of coronary artery disease. When chest pain is present, it is usually not associated with effort. With rare exceptions, when precordial or substernal pain on effort occurs in the presence of diaphragmatic hernia, the foregoing objective tests uncover the customary evidence of organic disease of the coronary artery.

A hiatus hernia may be the trigger mechanism in the precipitation of angina pectoris when coronary sclerosis exists. From both the physiological and clinical point of view, it is of interest that anemia, hematemesis or melena, severe diarrhea, vascular collapse or shock, all of which not infrequently occur in conjunction with diaphragmatic hernia, are precipitating factors in acute coronary insufficiency, especially in patients with antecedent coronary sclerosis. Co-existence of the two diseases is easily verified in this group, too, by the objective tests already enumerated.

* * *

"Hysterin"

A Hysterogenous Clot-Dissolving Substance

Emanuel M. Greenberg*

In 1945, the author reported the "non-clotting component of postpartum uterine blood." 1 This observation, together with the traditionally cryptic failure of menstrual blood to clot, led the author to determine whether the clotting failure was the result of the absence of one of the components necessary for clotting, or whether it was due to the presence of a clot inhibitor or a clot dissolver.

The presence of an anti-clotting uterine enzyme has been postulated for many years, and in 1946 the author, in a study of postpartum hemorrhage and the fourth stage of labor, first used the name "hysterin," 2 for this as yet hypothetical thrombolytic substance.

A. Preparation of Hysterin: Human uteri, obtained at hysterectomy from the operating rooms of Beth Israel Hospital are being used. The tissue is ground and centrifuged, filtered and frozen. Some specimens were dry-frozen or lyophilized. Lyophilized extracts can, as powders, stand indefinitely and need only be redissolved with distilled water before use.

Purification including Berkefeld filtration and extraction studies will have to be carried out.

B. The Admixture of Freshly-drawn Venous Blood With "Hysterin."

20 cc. normal Saline + 10 cc. Venous Blood → Clot; latter was present at end of 72 hours.

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20 cc. redissolved lyophilized crude hysterin + 10 cc. Venous Blood → No Clotting after 72 hours—the blood cells form a sediment but can be easily resuspended by shaking.

C. The Admixture of Clotted Blood With "Hysterin."

20 cc. Crude Hysterin + Clot (first allowed to retract) → Dissolution of Clot in four hours.

Saline Control: Clot undissolved in four hours.

Note:—"In-vivo" studies are now being carried out and appear to be promising.

REFERENCES


The Effect of d1-Methionine on the Healing of Surface Wounds*

S. Arthur Localio, Lee Gillette, and J. William Hinton

Previous work (in press—Surgery, Gynecology and Obstetrics) indicates that d1-Methionine can bring the curve of healing of the hypoproteinemic rat toward normal. These experiments were performed on the abdominal wall of the rat. Since the healing of surface wounds is not primarily a process of fibroplasia, but one of contraction and epidermatization, this study is outlined to test the effect of d1-Methionine on the healing of surface wounds in the rat.

METHOD:

Areas of skin on the backs of the 4 groups of animals were excised, and the speed of healing was determined by the method of Douglas.

RESULTS:

The speed of healing of surface wounds of normal animals was determined. Secondly, the speed of healing of surface wounds of protein-depleted animals was determined.

It was found in the latter group that healing was markedly delayed.

Protein-depleted animals which received d1-Methionine manifested healing that was markedly accelerated as compared to the protein-depleted group which did not receive d1-Methionine.

The relationship of the accelerated healing and the enzyme activity of the sulphydryl radical is discussed.

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