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Examination and control of phlebothrombosis, thrombophlebitis and thromboembolic conditions with Szirmai's angio-myograph and their treatment with "HAH"

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Abstract

Summing up the above problems we may group them as follows: 1) Szirmai's angio-myograph and myotonometer furnish us with means to evaluate the author's successful method or medical treatment in thrombophlebitic, postthromboembolic (ulcer, etc···) states on the basis of the blood circulation through the muscles, clearly registered by the angio-myograph. 2) Szirmai's medical preparation "HAH" serves as a quick and effective cure for thrombophlebitis. Results are very often reached within a few days. The patient's health is restored so as to make him able to work. 3) The above preparation assures full success in the cure of thrombotic esp. thromboembolic states of the lower limbs-cases of ulcus cruris includedwhich up to now could not be favourably influenced by any other method of treatment. Description of varieties of above problems and other types of cases of peripheral circulation (Endangitis, etc.) and their relationships with the subject will be given in additional papers. The author reports on registering and controlling thrombophlebitis, postthromboembolic states, including ulcus cruris, origin∼ting either in above morbid conditions or in independent causes by means of the angio-myograph and myotonometer devised by the author. The reader is made familiar with the author's (Szirmai's) preparation "HAH" (Heacrin) and with the results achieved by applying it for the cure of acute thrombophlebitis and thrombotic states. Results are often showing up remarkably soon (2 to 6 days).

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EXAMINATION AND CONTROL OF PHLEBOTHROMBOSIS, THROMBOPHLEBITIS AND THROMBOEMBOLIC CONDITIONS WITH SZIRMAI'S ANGIO-MYOGRAPH AND THEIR TREATMENT WITH "HAH"

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In order to throw light on certain problems of thromboembolic and other angio-phlebo-myologic diseases and on the evaluation of their diagnostic, prognostic, differential diagnostic problems and the treatment of controllable problems I have chosen the approach from a biophysical point of view.

I have made use of my angio-myograph for the examination of the treatment of thrombophlebitic cases.

In this paper a brief survey on my inventions: 1) the angio-myograph, adding some angio-myograms, 2) my method of treatment and control of phlebothrombosis, thrombophlebitis and thromboembolic conditions with H. A. H. (Heacrin) and its combination with other drugs.

APPARATUS AND METHODS

Tne angio-myography (my invention) records the condition of the tissues—hence the state of the muscles and capillaries on the basis of changes occurring in the volume of the muscles, the venous and arterial status. The above-mentioned apparatus serves not only for measuring momentary states but helps to observe conditions throughout definite spaces of time (Diagrams: Figs. 1～5). From the degree of the angio-myogram amplitudes we obtained the degree of the vasal inflammation and the intensity of pain as well as the success of treatment. At the beginning of an inflammation the amplitude is moderate, the pressure of 55 to 60 angio-myotons being sufficient for sensing it. Under the pressure of 30 myotons, however, which is the normal quantity of our operations, pain most probably sets in 30 seconds later. In acute cases pain makes itself felt even before other symptoms of any importance may be observed.

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In the early period of inflammation and during the period of its development, the amplitudes of contraction decrease. With the development completed we find the intensity of pain raised to its highest peak. Such is also the case with ulcus cruris. Amplitudes depend here on the intensity of the inflammation, on venous and arterial circulation through the tissues. In the case of ulcus cruris some deviation occurs in the amplitude of contraction for it shows lower degrees than the amplitude in case of an inflammation of the blood vessels. Thrombotic states prove that fact in particular since in consequence of the vasal inflammation a marked insufficiency of circulation occurs as described in the diagnosis. From the angio-myogram amplitudes of the thigh we are able to conclude a morbid process in the leg. We shall take up this problem in detail on explaining Fig. 1.

Fig. 1 offers a schematic illustration of what we were discussing above: (*a*) A developed state of acute inflammation with violent sensation of pain in the case of an ulcus cruris. Diagram shows a straight line. (*b*) Developed acute phlebothrombosis and thrombophlebitis. Diagram presents a small deviation. (*c*) Incipient phlebothrombosis and thrombophlebitis, resp. decreasing inflammation. The amplitude is higher, but in both cases. (*d*) Normal myogram.

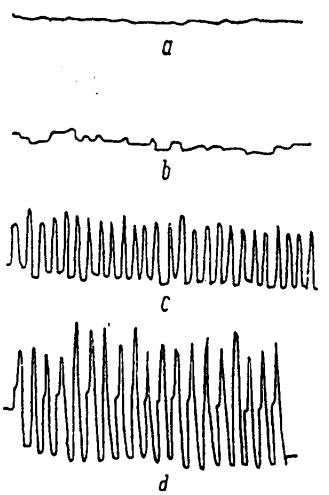

Fig. 1 Sehematic illustratifn of angiomiogram of acute inflammation (*a*), thromtophlebitis (*b*), thrombophlebitis with increased inflammation (*c*) aud normal case (*d*).

CLINICAL OBSERVATIONS, TREATMENT AND DISCUSSIONS

As table shows, I have treated many patients for thromboembolic and thrombophlebitic states.

Table 1 Diagnosis and Case Number of Patients Observed.

Diagnosis (Principal groups)	Number of cases
Phlebothrombosis and thrombophlebitis/ex infection, Trauma, *etc*···	(102+56)=158
Status postthromboembolic	116
Total of cases	274

With most of these cases I have reached a result by the help of my drug—the HAH. In certain cases of incipient phlebothrombosis and thrombophlebitis I succeeded in stopping the morbid process and restoring the patient's health by

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practically 1 or 2 treatments, often making him capable of earning his living again within 4 or 6 days, while otherwise he would have been deprived of his working capacity for weeks or even months. In most of these cases we have performed registration by means of the myotonometer and the angio-myograph, but could only state a structure in the amplitude normalizing very soon.

In order to illustrate our lecture we wish to give several examples. We have chosen the case of Mrs. K. to show a complete recovery. We think it is not necessary to give the complete diagram, as the amplitudes normalized soon and corresponded to those of the conditions before the inflammation, having no characteristic differences worth showing. Mrs. K., 36 years old, registered July 5, 1956.

Patient reports that while sitting at home the afternoon of the day before she felt pain above one of her knees and discovered a red spot there. She went to bed, probably run a temperature. A hard clot could be felt at the red spot. She had already had twice such thrombophlebitis. First after child birth, the second time after an operation. In both cases she was confined to bed for 6 weeks, receiving no other treatment but compresses.

Patient also complains of heart troubles for several days. Swollen red spot of a fist's size, blood vessels somewhat hardened. Sensitive to pressure.

Therapy: Compresses, confinement to bed; no hepatic lesion having been stated, patient receives rheopyrin 3 times daily for 3 days. Then, for 3 more days, we give her peletan in the following doses: 3×1, 2×1, 2×1; near the swollen spot and somewhat farther off we inject 0.15 ml HAH. Within a few minutes the redness of the inflammation turns pale, the hardness of the veins softens. Patient feels pain diminishing.

July 9, 1956. Reported by patient: After two days of rest pains ceased; no complaints of any kind, able to work. The spot had lost its red colour, veins were no longer hard. July 13, 1956, patient without any complaints, no further treatment necessary.

Mrs. B. J., 62 years old, doctor's widow, registered June 14, 1956. On arrival left shank severely oedematous, induration from ankle up to two fingers' breadth under her knee, along inner surface of her leg 12 swellings of a lentil to a 5 Deutsche Mark coin's size. The patient complains of pains in the leg while walking and even at rest. Toes feel cold, resp. cool. Low oscillatory values, amplitudes hardly perceptible by means of the myotonometer, high basic tonus. In the course of our examinations the myograph curve makes us conclude a retraction of the muscles. The patient—having come up from the CSR for this special purpose—is thoroughly examined at the department for internal diseases. Results of these examinations support the changes stated by our own diagnosis. (Heart *etc.* R. R 133/80). The patient runs no temperature. We

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can find no acute inflammation in the swelling area. The patient informs us about having had a thrombosis 20 years ago, about having called on doctors in Pressbourg and Prague, about having received no treatment. She was advised to come to our hospital. Her son, medical doctor in America, had sent her several medicines.

June 14, 1956. 0.3 ml HAH subcutaneous injection into the left shank. Within 5 minutes already, so the patient assures us, walking becomes easier, legs feel softer, swelling is somewhat reduced. We inject a crystalline penicillin solution. The patient is treated with HAH—0.4 ml at each occasion—4 times more. Result: no complaints of additional troubles except for a slight headache of short duration.

June 21, 1956. All swellings completely reduced. Easy walk, indurations only of 4 to 5 fingers' breadth above ankle. We suggest home treatment: temporary use of priscol preparations and soft massage with Burrow's salve.

July 12, 1956. Letter from patient informing us that patient has no complaints but for a slight swelling of the foot appearing towards evening.

Fig. 2 shows the angio-myogram of this case: "A" marks the passive, "B" the active movements. X_1 means the left, X_2 tne right thigh. As we may observe on the angio-myogram there are hardly any important oscillations to be seen on the ulcerated left shank either with passive or with active movements. Comparing to the amplitudes of the right shank we may find sufficient oscillations there. On the basis of their mean values, amplitudes of the left thigh are less satisfactory than those of the right thigh. They would be much smaller still in the case of a progressive inflammation of the shank and thigh. Both extremities display a bad capillary function and show a slight retraction of the muscles. Fig. 3 is the angio-myogram of a 55 years old patient, Mr. M. L., electrician.

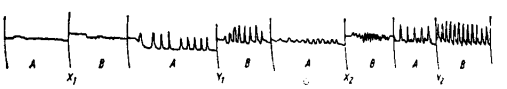

Fig. 2 Angio-myogram in a case of thrombosis (Mrs. B. J.), Explanation: See text.

After removal of his appendix in 1952, he had been confined to bed for one year because of a thrombosis in his right thigh. Until 1955, he had suffered from constant swellings along his leg and had had pains even in states of repose. A few steps had been enough to violent pains in his shank and thigh. Following medical advice he had worn elastic stockings for about one year. Registered for treatment in November 1955.

Until the time of the angio-myogram was recorded 6 local HAH injections had been administered to the patient. Since then he has not worn elastic stockings, his legs are less swollen and he is able to walk 1 km's distance without feeling any trouble to complain of. On arrival his oscillatory and myotonometric

values were found much diminished. The angio-myogram also registered contraction amplitudes of active as well as of passive functions as being greatly shortened. The distinct differences of the amplitudes of contraction may clearly be observed between the passive movements of the left (AX_1) and the right (AX_2) shank and between the active movements of the left (BX_1) anh the right (BX_2) shank. Photographs are dated December 31, 1955, and July 31, 1956 (see Fig. 4).

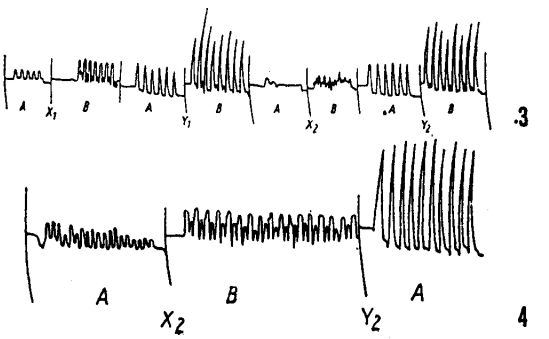

Fig. 3 and 4 Angio-myogram in a case of thrombophlebitis (Mr. M. L.) on Dec. 31, 1955 (Fig. 3) and July 31, 1956 (Fig. 4).
Explanation: See text.

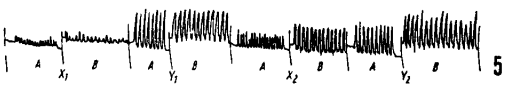

Fig. 5 Angio-myogram of postthromboembolic cruris 1, sin. Explanation: See text.

Fig. 5, Mr. L. L. from Paris: Diagnosis of St. postthromboembolic cruris 1. sin. The bigger amplitudes on the right shank (X_2) are caused by the interruption of the treatment.

On several occasions already we have referred to our medical preparation called HAH. Here follows a short description of it: HAH consists of 3 basic substances all of which are present in the organism also under physiological conditions. Components are: (a) stable plasma proteins, substances functioning as activators, (b) physlological inhibitors, (c) H-like substances (See Issekutz, Gyògyszertan/Pharmacology page 458).

The mixture is based on results from many experiments. We use the above components in the following proportions: (a) 10 to 30%, (b) 40 to 80%, (c) 10 to 30%.

Any variation may be given to above (1, 5 : 4, 5 : 4) proportions. Divergences, however, may cause ineffectiveness or lead to contrary results.

HAH (Heacrin) was generally used in intracutaneous and intramuscular ways, in doses of 0.2 ml; 1.0 ml to 1.5 ml were maximum daily amounts in exceptional cases. HAH serves to dissolve and decompose thrombophlebitic clots, controlling pain immediately or within a few minutes after administration. This shows our treatment to be definitely effective.

Besides the above mentioned method of treatment by means of HAH we also produce anti-coagulative preparations (antibiotics) for certain cases. Together with control examinations for physiological coagulation we use them in isolated or combined states. It is not only partially successful effects that I am

able to reach by the help of my method. It is most effective in checking thrombotic and thromboembolic states, which could not be influenced by any other means and were gradually changing for the worse, through quickest intervention and to cure them in whatever stage of development I found them. In addition, I am in the position to facefully developed morbid states and treat them with success while any other method of treatment fails.

COCLUSION AND SUMMARY

Summing up the above problems we may group them as follows:

1) Szirmai's angio-myograph and myotonometer furnish us with means to evaluate the author's successful method or medical treatment in thrombophlebitic, postthromboembolic (ulcer, *etc*···) states on the basis of the blood circulation through the muscles, clearly registered by the angio-myograph.

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Description of varieties of above problems and other types of cases of peripheral circulation (Endangitis, *etc.*) and their relationships with the subject will be given in additional papers.

The author reports on registering and controlling thrombophlebitis, postthromboembolic states, including ulcus cruris, originating either in above morbid conditions or in independent causes by means of the angio-myograph and myotonometer devised by the author. The reader is made familiar with the author's (Szirmai's) preparation "HAH" (Heacrin) and with the results achieved by applying it for the cure of acute thrombophlebitis and thrombotic states. Results are often showing up remarkably soon (2 to 6 days).

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