tional to the amount of precipitate that had been formed. The supernatant from the plasmin treated with 1.6 μg of zinc showed the same activity as the untreated plasmin.

The experiment was repeated using homogenized egg albumin[2] as a substrate, and again it was found that 45 μg of ionized zinc was sufficient to precipitate 30 units of plasmin, so that no activity remained in the supernatant fluid.

A zinc chloride solution was prepared so that 1 ml again contained 45 μg of zinc, and this was also effective in completely precipitating or inactivating plasmin. The precipitate was redissolved by dialyzing it against tap water for 4 hr. Plasmin activity was demonstrated in this solution, although recovery was not complete. Dialysis of plasmin against tap water results in the loss of some plasmin activity.

The technique promises to be of value in the crystallization of this enzyme.

Reference

1. VALLÉE, B. L. *J. clin. Invest.*, 1948, **27**, 559.

[2] Courtesy of Otto Schales.

A Simple Technique for Observing Carotid and Brachial Artery Pulse

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Various methods have been used in the laboratory for measurement and observation of the carotid pulse. In most cases the methods employed utilized various delicate pieces of apparatus, such as double membrane tambours and kymograph drums. In many cases irregular recordings of the carotid pulse are obtained because of inertia in the equipment used. Students rarely actually visualized the pulse they were studying.

A simple technique for visualizing the carotid pulse and the brachial pulse has been developed in this laboratory. The simple apparatus necessary, as shown in Fig. 1, consists of a test tube *A*, two graduated glass tubes (with a bore of about 1 mm) *B* and *C*, a three-holed rubber stopper, two pieces of rubber hose (about 18 in. long) *D* and *D′*, and two glass funnels *E* and *E′*. (Funnels are 1.5 in. in diameter at the mouth.) The test tube is almost completely filled with water *F*, and a few drops of methylene blue, neutral red, ink, or other coloring material are added to the water, so as to obtain a slightly colored solution. Each of the graduated glass tubes is inserted in one of the openings in the rubber stopper. The rubber stopper with tubes is inserted into the test tube. A piece of rubber hose is attached to each of the glass tubes. A funnel is then inserted into the free end of each piece of rubber hose.

When either funnel is pressed against the neck over the carotid artery, air in the tubular system is bubbled out

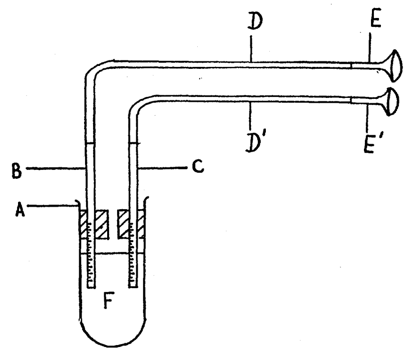

FIG. 1. Schematic drawing of apparatus used for observing carotid and brachial artery pulse.

at the submerged end. If a little more than sufficient pressure to detect carotid pulse is exerted, then slight release of pressure will draw fluid into the system to any desired height. When pressure is properly adjusted, the pulse will drive the air column through an excursion of several mm (as is noted on the graduated portions of the glass tubes).

The other funnel may be placed over the brachial artery near the bend of the elbow, and with somewhat greater pressure, the pulse in the brachial artery may be likewise observed.

If a 1-in. strip of old inner tube rubber approximately 18–24 in. long has a hole punched near its middle, through which the funnel stem is inserted, then the funnel can be held against the carotid by elastic tension, provided the tubing is drawn around the neck and fixed by means of a hemostat or clamp. A protecting roll of cloth at one side of the opposite carotid artery should be used to avoid decreased cranial flow, which may otherwise occur. It is possible that, when one funnel is thus fixed over the carotid artery, the same individual can hold the other funnel against the brachial artery. Thus the menisci of both pulse pressures can be obtained simultaneously and compared as to excursion and sequence.

Cretaceous Rocks in the Kamishak Bay Area, Cook Inlet, Alaska

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South of Kamishak Bay in the Kamishak Hills between the Kamishak and Douglas rivers, at least 2,000 feet of Cretaceous sediments rest with possible disconformity upon Upper Jurassic Naknek beds. The Cretaceous is predominantly greenish-gray, medium-grained silty current-bedded sandstone, similar in many respects to the underlying Jurassic. Near the base, bluish-gray concretionary limestone is present locally, but at other places the presumed base is marked by a thin pebble conglomerate, including well-rounded fragments of horn-