the "peeled" organism. In order to obtain such a preparation, however, it is necessary to mount the specimen so that its center exactly corresponds to the rotational axis of the lathe.

The technique is not restricted to use in the preparation of paraffin sections. Celloidin embedments mounted on wooden blocks in the conventional manner can readily be attached to screw-center chucks and sectioned longitudinally or transversely. By means of this procedure the routine sectioning of celloidin materials may be greatly accelerated.

The author has prepared only a limited number of materials by this method, but it seems to offer unique advantages to the biologist. It should be of particular value in the preparation of materials exhibiting concentric growth patterns or elongate cylindrical morphology. It has been employed to advantage, however, in the preparation of spherical sarcodinian protozoa for cytological study and should find ample development in other cytological investigations in which structural relationships of component tissues or cellular elements are not of prime importance.

The technique is capable of considerable refinement and must, indeed, be so refined if it is to become a routinely valuable one to the scientist.

Subcutaneous Implantation of Cortisone Pellets in Rheumatoid Arthritis

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Cortisone has been shown (*1–4*) to be useful as a palliative in rheumatoid arthritis when injected in aqueous suspension and when given orally. Wide experience with other steroids administered in the form of pellets implanted subcutaneously shows that excellent utilization is the rule. In the case of desoxycorticosterone acetate pellets used in the treatment of Addison's disease, constant absorption from the steroid depot created by pellet implantation exerts a physiologic effect that is sustained for many months. When comparable studies are made in the same patients it has been shown that the efficiency of 1 mg desoxycorticosterone acetate absorbed from pellets is about twice that of 1 mg absorbed from daily intramuscular injections (*5, 6*). Thorn and co-workers (*7*) found this to be true of cortisone pellets in patients with Addison's disease. From 3 to 10 pellets weighing 50–80 mg maintained the patients in good condition (under average demands) for 3 months, without observable biochemical disturbances.

It was deemed advisable to appraise the effect of cortisone pellets in patients with rheumatoid arthritis in the course of other studies we were carrying out with this drug (*8*). Eight adult patients with typical rheumatoid arthritis of severe grade received subcutaneous implantations of 900 mg cortisone as 12 pellets of 75 mg each. In four of the cases no cortisone in any form had been given previously. Four had been receiving cortisone by daily intramuscular injection for varying periods of time prior to the implantation and had also been receiving cortisone plus insulin.

Prompt clinical improvement of moderate degree followed the implantation and was sustained for 2–4 weeks, whereupon all the patients (except one) relapsed to their pretreatment condition. The exceptional patient was a man, H. C., aged 49, in Stage IV (*9*) of the disease, who had sustained a minor improvement with cortisone plus insulin, relapsed somewhat during 2 weeks without treatment and was then maintained in an improved state for 4 months after the implantation of pellets. In view of the long duration of "benefit," it appears probable that the disease had temporarily become quiescent from other causes.

Marked euphoria developed in one woman, C. W., who experienced her first epileptic seizure in 9 months one week after receiving the implantation. This patient enjoyed the most outstanding improvement, which continued for 3 weeks. The next best result consisted of moderate improvement in one woman, E. C., lasting 3 weeks. Four patients benefited slightly for one week after the implantation, and one woman, M. F., was not improved significantly.

It is of interest that the pharmacologic actions of cortisone by pellet implantation are of remarkably short duration in patients with intact adrenal cortices, in contrast to those with Addison's disease. Notwithstanding the low solubility of cortisone (as the acetate), the prolongation of action as with other steroids in pellet form is not achieved; the procedure more nearly resembles a short-term, intensive therapy.

It is our feeling that the patients were undertreated, even though most of them exhibited some manner of response. A new group is receiving twice the dosage discussed here; results will be reported later.

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