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**Ergot in Cranial Injuries and
Pulmonary Inflammation.**

BY

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NEW YORK.

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ERGOT IN CRANIAL INJURIES AND
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IN the following paper, under the term "ergot," I include the various preparations derived from the sclerotium of the *claviceps purpurea*, which are capable of producing the physiological effects attributed to the drug. The unfortunate pharmaceutical complexity of names and preparations renders a comprehensible term expedient, and I have adopted that which is employed most frequently. Among the many preparations of this agent I prefer Bonjean's "ergotine," although I have had equally satisfactory results from the fluid extract of ergot.

I wish to relate briefly my experience of two therapeutical applications of ergot, one of which, I think, I may claim as somewhat original, while I am of opinion that the other is used but too infrequently for a remedy of such exceptional utility. I allude to its hypodermic administration in cerebral injuries and pulmonary inflammation, a method of treatment from which, in both these conditions, I have obtained very gratifying effects.

Whether we attribute the physiological effects of ergot to its inhibitory or retarding influence upon the heart, to its dilating effects upon the venous system.

with the consequent withdrawal from active circulation of a considerable portion of the blood, or to its more positive influence upon the vaso-motor centres, exciting the contraction of the non-striated muscular fibres in the arterial system, we must recognize that its ultimate effect is to diminish, to a marked extent, the area of the arterioles and consequently the reduction of the quantity of blood which reaches the capillaries. These conditions induced me to suggest its use in a case of injury of the head relative to which I was consulted some six years since. The patient suffered from a very severe cerebral concussion which was the result of a fall, and when I saw him he was rapidly passing into a condition of grave compression. The hypodermic injection of ergot distinctly retarded the progressive symptoms, and upon the treatment being continued the patient recovered with great rapidity. This satisfactory result encouraged me to test the remedy in several grave cases of head injuries which occurred during my service in the Jervis Street Hospital, Dublin, adopting the precaution of withholding the injection, when severe collapse was present, until reaction had set in, owing to the possibility of the ergot exercising any inhibitory influence upon the already enfeebled heart. This treatment gradually grew in favor, owing to the rapidity of recovery and the marked diminution of the appearance of severe symptoms in the great majority of head injuries which were subjected to it, until ultimately it became the routine of the hospital before the severance of my connection with it; the house officers primarily administering one or more injections to the patients admitted to the institution with symp-

toms of intracranial injury. It is unnecessary to dwell upon the rationale of the procedure further than to mention that as a means of diminishing the reactionary circulation in concussion, and limiting extravasation in laceration, the utility of ergot, or some of its derivatives, is very obvious.

The pathological importance of the dilated arterioles, the capillary stasis, and the increased blood-pressure in active pulmonary hyperæmia and inflammation would naturally suggest the exhibition of a drug, the action of which is held by reliable authorities to induce the contrary conditions. When I gained my first experience of the efficacy of ergot in pulmonary inflammation, which was shortly after the cerebral case I have just described, I was not aware that Wycisk, in Germany, Yeomans, in America, and others had already administered it internally in pneumonia. It resulted from the necessity of affording relief to a lady who was compelled to continue her journey, after she had called at my office, suffering from acute pulmonary congestion, resulting from exposure and exhaustion. Her state was characteristic and most piteous, and the pathological condition suggested the remedy which promised the most rapid effect, namely, the hypodermic injection of ergot. The almost instantaneous relief which she experienced, and the fact that she required no subsequent treatment on her arrival at her distant home, impressed me profoundly. I repeatedly administered the remedy subsequently and communicated my experience to my professional acquaintances, among them to that eminent physician, Dr. James Little, of Dublin.

One other example will enable me to indicate the

application of this remedy under the most unpromising circumstances. Some three years ago I took charge of a patient in the second or third week of typhoid fever, who also had very extensive double basic pneumonia. At the time I regarded the case as almost hopeless, and yet, to add to my difficulties, a few days after, the anterior lobe of the right lung became involved, causing the patient intense agony and most distressing orthopnoea. Merely as a forlorn hope I injected ergot, with the almost unexpected result of affording him a rapid, though partial, relief from the dyspnoea and a distinct mitigation of the acute pain. Again and again the inflammation attacked this lobe, and each time I treated him similarly with the same agreeable results. During this pitched battle between the ergot and the disease, which continued for two or three weeks, the posterior lobes progressed most favorably, and convalescence was established after a sickness of eleven weeks. I might add largely to these cases, but my object is attained if by those characteristic examples I direct more general attention to some of the potent influences of ergot.

I have overcome the difficulty of rendering ergotine portable by instructing Messrs. Metcalf, of Boston, to fill for me, with Bonjean's preparation, a capsule such as artists use to contain their colors. The requisite quantity of ergotine may be pressed out easily and dissolved in water immediately before it is injected. This expedient, combining simplicity and cleanliness, affords an excellent method of preserving a very delicate drug.

