

to in preference to lithotriety." In the *first* group of twenty-four cases there were two deaths, only one of which, however, could be attributed to the operation. In the *second* group there were six cases, all of which were successful. In the *third* group there were fourteen cases and eight deaths. The average number of deaths in the three groups was one in six and one-ninth cases—not a very brilliant result it must be admitted. But, if we exclude the third group of cases—cases in which the condition of the bladder and urethra, and the large and hard composition of the stone, alike forbid resort to the lithoclast, then we find groups one and two, comprising thirty-one cases, giving but two deaths. And, as the author claims, "if to this be added twelve relapses, the aggregate of cases is increased to forty-one, and the rate of mortality further reduced to one in twenty and a-half." We think Dr. Buck erred in submitting the cases in the third group to the action of the lithotrite. They were cases clearly belonging to the lithotomist, and the severe disturbance of the bladder lit up by, as he says, "a single crushing easily and promptly performed," showed their ineligibility to the kind of operation to which they were subjected. Yet is it difficult sometimes to predict these disturbances, and, when they do occur, and go on to a fatal termination, it is equally difficult to explain their symptoms on the pathological conditions found after death, where no "abrasion of the lining mucous membrane of the bladder was detected."

The author, from an observance of fifty cases, draws certain conclusions, which are thus stated:—

1. "For patients under seventeen years of age lithotomy should be preferred. Its results, heretofore, in such cases, have been so favorable as scarcely to leave any other resource to be desired, especially now that we possess the inestimable auxiliary advantage afforded by anæsthesia. The only exception admissible to this rule might be a case not under ten years of age, in which a stone was ascertained, by measurement with a lithotrite, not to exceed one-half to three-fourths of an inch in diameter, and which might therefore very probably be gotten rid of by a single operation."

2. "For adults lithotriety is most advantageously employed when a moderate sized calculus, co-existing with a favorable condition of the urinary organs and general system; also, where a like favorable condition of the local and general system co-exists with a calculus of large size, but not of hard consistency."

3. "If a calculus be found by the lithotrite to be very hard, and to measure one inch or more in diameter, though at the same time other favorable con-

ditions may co-exist, lithotomy should be preferred as affording the patient the best chance of a good result."

4. "Great difficulty in passing the neck of the bladder with the lithotrite, whether for enlargement of the prostrate, or from a fixed position of the stone itself, should deter from the employment of the lithotriety."

5. "In a debilitated or reduced state of the system from purulent cystitis and protracted suffering, irrespective of the size of the stone, lithotomy should be preferred. Emptying the bladder instantaneously of its foreign contents, and putting it at rest by draining off the urinary secretion, will afford the patient, in such condition, the best chance to rally and recover."

6. In a case of stricture of the urethra its complete cure should be a preliminary step to the employment of lithotriety.

In the author's directions for seizing and crushing the stone, we think he errs in advising to "proceed to seize the stone without first sounding for it." We should rather advise sounding for and finding it, before proceeding to crushing. With his other suggestions we entirely agree, particularly with his advice to *rotate* the instrument, with the stone held securely to make sure that no part of the bladder is seized with it. Another rule which the author recommends and which might generally be followed with advantage, is this: not to continue the lithotrite in the bladder for a longer period than five minutes, whether the stone had been seized or not. This rule should not be absolute, for a much longer continued attempt to seize and crush might be well borne in some cases, while a shorter period might be productive of irritation in others. The tact and judgment, however, requisite to fit a surgeon for the performance of this, unquestionably one of the most delicate operations must be trusted to. A careful review of these cases, a synopsis of which we have here given, leads us to adopt the views now generally entertained, and which the author thus expresses: "Lithotomy and lithotriety are not to be regarded as rival methods, one of which is destined to supersede the other, but they are rather to be viewed as supplementing each other, each having its special application to peculiar conditions which should be carefully discriminated." And the author, in his unpretending little pamphlet, has added something to our means of discriminating those cases which should be submitted to the knife from those which may properly be left to the lithotrite.