cases, their presence is easily detected by a probe or even by the finger, as they project close to the extremity of the duct, and an incision over them renders removal very easy. Occasionally, even in this comparatively superficial position, they have been the cause of so much irritation as to be mistaken for cancer. (Holmes's *Dictionary of Surgery*, vol. iii, p. 907). Salivary calculi are occasionally described as either complications or causes of ranula; this seems not to be a correct way of putting the case; for, though some cases are seen in which the salivary calculus has caused by its mechanical obstruction of the duct a temporary collection of saliva behind it, the fluid which is liberated by its removal has not the consistence or appearance of the fluid met with in ordinary cases of ranula. In the two cases recorded above, the calculi were more deeply seated, being rather in the substance of the gland than in the duct, and the second one especially is remarkable for the long duration of the symptoms. In both, the walls of the tumour in which the calculi were imbedded were very firm and hard; in neither was there the slightest accumulation of either saliva or the glairy fluid of a ranula. A case recorded by Gross of Philadelphia (Gross's *Surgery*, 3rd ed., vol. ii, p. 479) seems to have resembled mine in the obscurity of some of the earlier symptoms. Probably, if left alone, the natural course of such calculi is, as South says (South's *Chelius*, vol. ii, p. 406), to escape by ulceration into the cavity of the mouth; but my cases showed that this may, in some cases, involve a very long and a very painful process, before any progress in such ulceration results. Excision in every case is easy, painless, and satisfactory. I have preferred, for the sake of brevity, rather to refer to authorities on this subject than to quote them.

ENCHONDROMA OF THE HAND IN A CHILD: REMOVAL OF THE TUMOUR WITH TWO METACARPAL BONES, THE FINGERS BEING PRESERVED.

By JOHN K. BARTON, M.D., F.R.C.S.I.,
Surgeon to the Adelaide Hospital, Dublin.

SARAH J. C., a year and a half old, was brought to me in January 1868 by her mother, with a note from my friend Dr. Duke, requesting my opinion of the case. I found a tumour occupying the back of the left hand of about the size of a large walnut. It was fixed, widest below, where it passed into the metacarpal bones of the middle and ring fingers, and quite smooth on its surface. It felt very firm and osseous at its base, somewhat softer on its sides, and at its apex soft and semifluctuating. In the palm there was a perceptible swelling corresponding to the two metacarpal bones affected. There seemed to be no pain, even when the tumour was freely handled. It was slightly red at its most prominent part.

The history given by the mother was, that about six months previously, the father of the child, when playing with her, had accidentally struck the back of the child's hand against a hard piece of furniture, which hurt the child a good deal at the time, and soon produced a swelling, which had remained, and gradually increased in hardness and in size; that there did not at any subsequent time appear to be pain in the tumour, as the child played about and used the affected hand freely; but that latterly she could not close her fingers. The child had always enjoyed good health. From the peculiar feel of the tumour, which was yielding at the sides and apex, but firm at its base, and also from the fact that it was certainly continuous with the shafts of the two metacarpal bones, I concluded that it was an enchondroma springing from these bones. However, as the apex was somewhat red and fluctuating, I introduced a fine trocar at this spot into the tumour. A very little blood alone escaped. At a subsequent examination, I found that supuration to a limited extent was taking place where the puncture had been made. After a few days' poulticing, an opening being made, a small quantity of purulent matter escaped; but the bulk of the tumour was not at all diminished. The child was now taken to the country, and given cod-liver oil. When I again had an opportunity of examining it, I found the little patient in excellent health, but the tumour decidedly larger than when it was first seen. Under these circumstances, I advised the removal of the tumour with the bones from which it sprang. The mother and child were consequently admitted to the Adelaide Hospital upon March 10th, 1868. The metacarpal bones of the middle and ring fingers were manifestly part of the tumour; their removal was therefore imperative. The question whether by any possibility the two fingers could be saved was then considered; and, in consultation with my colleagues, I determined to make the attempt, arguing that, even if the fingers proved useless, their presence would lessen the deformity of the hand. Accordingly, upon March 18th, the child being under the

influence of chloroform, I laid bare the tumour, and removed it with the two metacarpal bones to which it was firmly attached. During this process, the extensor and flexor tendons were carefully held out of the way of the knife. The metacarpal bones were cut with the bone-forceps at the carpal extremities, while they were disarticulated from the phalanges. The middle and ring fingers were thus left without any osseous support. The sides of the wound were then drawn together, and the hand and fingers supported with a splint. The little patient did very well, and was able to leave the hospital upon April 13th; the wound in the back of the hand granulating, while the whole hand and fingers were still supported with a splint.

Upon examination of the tumour, it was found to be a true enchondroma, softened in the centre, where it was filled with a substance exactly like sago made with wine, soft, granular, and of a red colour. The walls of the tumour, particularly where it joined the bone, presented the peculiar bluish-white tint of foetal cartilage characteristic of enchondromatous growths. The two metacarpal bones were rough and denuded upon the inner surfaces, where they formed part of the growth, which extended from their palmar, as well as their dorsal, aspects. Microscopic examination of the walls and contents of the tumour showed cartilage-cells in abundance.

Three months elapsed after the child left the hospital before the wound was completely healed; but long before this she was using the hand freely. In November last, the child was brought to me, and I had an opportunity of carefully examining the hand. I found the hand somewhat smaller, not much, however, than the other; the middle and ring fingers somewhat retracted towards the hand, so that their tips were not quite so low as those of the other; but, with this exception, they presented a perfectly natural appearance. With regard to the power of moving, I found that a pencil was grasped and held firmly by all the fingers together; but the two unsupported fingers were not extended again as quickly as the others. Sensation was perfect in them, and they appeared to have grown in proportion with the other fingers.

This case may claim some attention from the rarity of enchondroma in so young a child; but the success which followed the attempt to save the fingers, while their metacarpal bones were necessarily removed, gives it its chief interest. I confess that I felt very doubtful as to either the usefulness or beauty of fingers so left, and only made the attempt to save them, as the mother begged that if possible they might be left. The result more than fulfilled my expectations, and is quite sufficient to encourage a similar attempt in other cases.

CARBOLIC ACID: ITS DOSES AND MEDICINAL VALUE.

By HENRY WILLIAM FULLER, M.D. CANTAB.,
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FOUR years ago, being desirous of testing the value of carbolic acid as an internal remedy in the treatment of disease, I determined to administer it experimentally in various cases at St. George's Hospital. My first object was to ascertain the maximum dose in which it could be taken without inconvenience, to note the symptoms, if any, produced by full doses, to determine its action on the pulse and the secretions, and to observe whether any evidence could be obtained of its cumulative action. Never having given it internally before, and never having heard of its having been administered in more than two minim-doses, I began by the exhibition of two minims dissolved in a drachm of glycerine and eleven drachms of water. This was given three and ultimately four times in the twenty-four hours. Finding that no appreciable effects resulted from that dose, I added one minim to each dose on alternate days, until the patients were either unable to swallow a stronger dose or complained of unpleasant symptoms. Thus, as far as the mere dose was concerned, I found that some adults—especially men who had been spirit-drinkers—could take ten or twelve minims without inconvenience and notwithstanding the occurrence of a certain degree of discomfort, could take doses of fifteen minims three or four times a day for many days consecutively; but that most persons, especially women, began to complain when the dose had been increased to eight or ten minims, and found six or seven minims a full dose.

The disagreeable symptoms produced by full or overfull doses were, firstly, a sense of burning in the throat on swallowing the draught; and, secondly, a giddiness and fulness, or peculiar feeling in the head—a feeling which occurred in some persons within two minutes after taking the acid, and in others not until the expiration of six or eight minutes. In some persons this giddiness passed off in ten or fifteen minutes, and in others lasted nearly an hour. In no instance was there