

If there are symptoms indicating inflammation, this remedy of course must be urged in the most decided manner. In regard to the remarkable effects of cold, I refer to a valuable paper by Mr. Smith of Kingussie, in the 9th Volume of this Journal, page 287. Of the other remedies that have been proposed, I have had little experience. Crude mercury in doses of lb. i. or more I have tried in several cases. In some of them, it appeared to abate the vomiting. I have not observed any other effect from it, and I am not convinced that the principle on which it is given is correct. In the *Memoirs of the Medical Society of London*, Vol. II. some remarkable cases are described, in which the forcible injection of fluid to the extent of six or eight pounds, was used with advantage.

Whatever practice is employed ought to be zealously persevered in, notwithstanding the most unfavourable appearances; for the disease has been known to resist for a long time the most active remedies, and yet terminate favourably, as late as the 17th day.

An Account of some Alarming Symptoms. caused by Spiculæ of Bone in the Stomach. By JOSEPH M'SWEENEY, M.D.

[From the *Edinburgh Medical and Surgical Journal*.]

ALTHOUGH the power of digestion has been found capable of subduing very hard substances, yet the human stomach, which often with difficulty digests solid articles of food, may be found sometimes incapable of acting on so solid a substance as bone. Even where the power of the organ is capable of acting on such a substance, in some cases so long a time may be necessary, that the foreign body may be productive of serious consequences. It is not to be inferred, that every substance difficult of digestion, or indigestible, is kept from passing out of the stomach. Daily experience shows, that the pylorus does not keep so strict a guard. Different indigestible substances have passed through the alimentary canal; even articles of food have passed unchanged. No doubt, pieces of bone of an unirritating shape have also passed without causing inconvenience. The pylorus not being irritated by a smooth body, can gradually dilate, and can allow it to pass without producing uneasiness; but where sharp spiculæ of bone have been swallowed unnoticed, alarming, perhaps fatal consequences, have ensued, without the cause being suspected. From the consideration of the pylorus, we must perceive the obstacles it will oppose to the passage of a

sharp body. It is endowed with contractile power, and is sensible to a stimulus. The contact of a sharp body must stimulate it violently, and must consequently cause it to contract, and thus oppose the passage of that which irritates it.

A gentleman at dinner swallowed a small fragment of bone. On the same evening, uneasy symptoms came on. He felt a pain in the centre of the *scrobiculus cordis* rather dull, but causing great anxiety. It sometimes changed its situation, but was mostly referred to the centre of the *scrobiculus cordis*. He sometimes had intervals of ease, at other times his sufferings became aggravated in a violent degree. He then could not point out the situation of the pain so exactly as before. It was felt more internally, as if some part inside was grasping some sharp body. In this state his body was bent, his hand was firmly pressed against the region of the stomach, his pulse became small and quick, a cold sweat broke out over the surface, and his anxiety arose to an alarming degree. From this state he generally found relief by change of posture, and the pain mostly resumed its former situation in the centre of the *scrobiculus cordis*. He had a constant desire of keeping the hand on the situation of the pain. I had recourse to diluted muriatic acid as strong as I could venture to give it. All bad symptoms ceased under its use, and he found no inconvenience from the acid, which freed him from the state of suffering in which he had been. I met with similar symptoms in the case of a gentleman who was conscious of having accidentally swallowed a fragment of bone at dinner, a good many days before. I had recourse to a similar practice, and with complete success.

Mrs. P—le, of Nicolson Street, in Edinburgh, consulted me last winter about a dull kind of pain in the region of the stomach. Not being decided as to the nature of it, I merely recommended attention to regimen. She applied to me a second time, and stated that she was not better, and complained of the great anxiety it caused her. I now suspected, that the pain might arise from a *spiculum* of bone accidentally swallowed. On close attention to the symptoms, I found they were the same as those stated above. She had the constant desire of keeping the hand on the situation of the pain, which was mostly felt in the centre of the *scrobiculus cordis*. There were intervals of ease, at other times the sensation of a sharp body being grasped, threw her into a state of agony. In this state, the pulse became small and quick, and a cold sweat broke out over the surface. Although she had not the least recollection of having taken any thing that would account for the symptoms, yet I did not hesitate in thinking, that the case was similar to those mentioned,

particularly as she had taken food in which a spiculum of bone might have been. I added as much acid to a half pint of water as I thought would be sufficient to relieve the symptoms without injuring the stomach. She took this quantity at one draught; but my disappointment was indeed great, when she complained of being rather worse on the following day. The acid had evidently increased the irritability of the stomach without acting on the foreign body. I now supposed that the acid had passed out of the stomach without remaining a sufficient time to act on the spiculum of bone; and as the irritability was increasing daily, I determined not to lose time, but to have recourse to the most vigorous practice at once. I made the diluted acid much stronger than what she had taken the day before; and having taken a quantity of it to be certain that it was not too strong to injure the stomach, I explained her case to her, and she willingly agreed to adopt any plan of treatment I should propose. She took a wine glass of this diluted acid every ten minutes. After a half pint of it was taken in this manner, she took the same quantity in one draught, and I was happy to find, after it, that the pain and anxiety had ceased with which she had been in agony during thirteen days. She now said she felt only a general sense of soreness; she slept well that night, next day she still felt the general sense of soreness, but she was in good spirits, and completely free from the pain. Having recourse to the remedy quickly on account of the urgency of the symptoms, unfortunately I did not ascertain the strength of the diluted acid I used. The standard I employed was to try it on myself in every case, and to take it as strong as I could with safety. The plan employed to prevent the teeth from being injured, was, to make the patient open the mouth as wide as possible, and to protrude the tongue so as to cover the teeth of the lower jaw; the edge of the glass was then rested on the tongue, and the diluted acid was swallowed without allowing it to come in contact with the teeth of the upper jaw. The mouth was repeatedly washed with water. In this manner, the teeth escaped uninjured even in the case of the patient who had been affected thirteen days, and who took a deal of the acid.

If this patient had been allowed to remain without medical assistance, it may be fairly presumed, that a fatal gastritis or ulceration of the stomach might have at length ensued. A thickened or ulcerated state of the pylorus might have been caused, and I am afraid, that affections of this kind have been classed under the title of scirrhus pylorus, while the cause of the mischief has not been suspected. It is possible that an ulceration would take place, through which the contents of the stomach would be ex-

travasated into the abdomen. A small fragment of bone might easily escape observation when enveloped in the ingesta of the stomach. It would be a desirable thing that the attention of examiners would be in future directed in search of such a cause in cases of extravasation of the contents of the stomach into the abdomen, and in cases of diseased pylorus. There is some danger of confounding the symptoms with those of cramp of the stomach, as a patient may have swallowed a spiculum of bone without being aware of it. The bent position of the patient, the contortious of his body, his hand pressed against the seat of the pain, the anxiety depicted on the countenance, and the intervals of ease, may deceive a practitioner suddenly called in, and may lead to injurious practice. These symptoms may be distinguished from those of cramp of the stomach, by the following marks: The pain is mostly felt in the centre of the scrobiculus cordis, and is described as if it could be covered with the point of the finger. In this situation, although the patient has a desire of pressing the hand gently against the seat of the pain, yet very firm pressure increases it. When the pain is felt more internally, causing the sensation of something being grasped, firm pressure gives relief, the pulse becomes quick and small, and a cold sweat breaks out over the surface. Perhaps it may be asked, would not it be better to employ an emetic in such a case? A person took an emetic on account of having accidentally swallowed a sharp body, and soon after expired. As the surgeon who was called in to examine the body, and by whom I heard the case related, will probably give the particulars in some periodical work, I shall not anticipate him; but the account of the dissection was quite sufficient to prevent me from employing an emetic. As a sharp body is prevented from passing, on account of its irritating the pylorus, a purgative medicine was, I think, contraindicated; it would be likely to make the pylorus suffer more. The diluted acid must have afforded relief by acting on the sharp irritating points which were fortunately most exposed to its influence, and thus allowing that to pass which was before prevented by the irritating points causing the pylorus to contract violently, when they came in contact with it.