

state did not show any improvement, nor did she brighten up at all before her death.

No post-mortem was allowed. The varying phases of this case render it of some unusual interest.

Accidental Scald, followed by Death on the Fourth Day. Ulcer of the Duodenum. By W. C. HILLS, M.D., Medical Superintendent of the Norfolk County Asylum.

I am induced to record this case by a sense of the uncertainty that surrounds, at present, the pathology of this subject. Individual experiences differ so widely as to duodenal ulcers, that I cannot but feel that the mere record of a passing case may be of value to others in generalizing on the subject.

The following case occurred this year, during my absence on the Continent, at Thorpe Asylum, but my deputy, Mr. Seymour, paid every attention to the patient, and I quote his report in relating the facts.

E. G., æt. 18, a female patient, was admitted in Jan., 1876, suffering from epileptic dementia. The previous history was to this effect: At the age of five she was severely burnt about the back, neck and arms, but she made a good and unexpected recovery. Shortly after she was seized with epilepsy, and the result was, in the course of years, weakness of mind, loss of memory, and general deterioration of mind and health.

In 1880 she was dirty, demented, and useless. On June 2nd she required bathing for purposes of cleanliness, and, by the inadvertence of a nurse, who had been in charge for some years, and was deservedly trusted, the hot water was turned on first, and, before the mistake could be corrected, the patient was scalded about the nates, thighs and feet.

The scalding did not appear severe at first, but there was vesication, and the case may be considered, I think, as that of a burn of the *fourth* degree, according to Dupuytren's classification. Collapse soon followed. The bath was given at 8 a.m.; at 6 p.m. re-action had set in, the patient was restless and feverish, and had, at 11 p.m., a pulse of 120 and a temperature of 104. The wounds were dressed with "Carron-oil."

Next day she was restless, interfered with the dressings, and had *vomiting*.

June 4th. The wounds looked healthy, except on the right foot. She was still sick, though the vomiting was for a time delayed. Next day she was weaker, she became collapsed in the afternoon, and died at 7 p.m.

At the *post-mortem* examination there was found a perforating ulcer of the duodenum, about the size of a shilling, on the posterior surface of the bowel, and about two inches from the pylorus. The edges of the ulcer were somewhat thick and pulpy, and adhered by plastic lymph to the head of the pancreas. The surrounding peritoneum was injected. The stomach was empty and slightly injected. The lungs were somewhat congested. No hæmorrhage had occurred from the bowels.

We thus have the case of a patient in fair bodily health, scalded more or less severely, but not extensively, and dying 88 hours afterwards with a peculiar pathological condition, and with no special symptoms except vomiting.

Ulceration of the duodenum after burns or scalds has been noted for many years past, and, in 1842, Mr. Curling related several cases in the "Medico-Chirurgical Transactions" (Vol. xxv.) Since then the subject has received considerable attention, but writers differ as to the frequency of the occurrence of these ulcers. Thus, Bransby Cooper, in his "Lectures" (1851), wrote of duodenal ulcer "as one of the very frequent sequels of extensive burns."

Miller, in his "Surgery" (1864), does not allude to it at all.

Dr. Wilks wrote, in 1856, in "Guy's Hospital Reports," 3rd Series, Vol. ii., as follows:—

During the year 1855 and first half of 1856, there have been (at Guy's) 37 fatal cases of burns and scalds. Of these, 12 were fatal within a few hours, 5 before the second and 6 before the third day. The subjects of these had never recovered from the shock of the accident, and therefore no *p.m.* was performed, as it was considered such would have been altogether fruitless. The remaining 14 cases died after longer intervals, and of these only 2 were not examined. In the other 12 cases the duodenum and intestinal canal were *healthy*. *It is clear that the subject is still open for much more extended observation.*

Dr. Hilton Fagge, who, as Pathologist at Guy's Hospital, has a large field of observation, wrote in answer to an inquiry, thus—

I have very little personal experience of the duodenal ulcer after scalds. I have seen one or two instances of it, but, I think, none for several years past; and I doubt whether I have ever myself met with a case in which any symptoms, whether of hæmorrhage or perforation had existed during life.

Erichsen, in his "Surgery," 7th edition, Vol. i., p. 256, says, on the subject of burns—

The abdominal organs were examined in 22 cases ; of these there was congestion of the mucous membrane, sometimes with evidence of peritonitis in 11 ; ulceration of the duodenum in 6 ; a healthy state in 5.

It is at the second stage (that of "reaction and inflammation") that the very remarkable and serious sequels, *perforating ulcer of the duodenum*, is especially apt to occur. . . . This ulceration may, by rapidly proceeding to perforation, expose the pancreas, open the branches of the hepatic artery, or, by making a communication with the serous cavity of the abdomen, produce peritonitis, and thus cause death. It usually comes on about the *tenth* day after the occurrence of the injury ; seldom earlier than this. The only exception with which I am acquainted was in the case of a child nine years of age, who died on the fourth day after the burn, and in whom an ulcer, of about the size of a shilling, with sharp, cut margins, was found in the duodenum, the intestinal mucous membrane generally being inflamed. These affections seldom occasion any very marked symptoms to indicate the nature of the mischief, the patient suddenly sinking.

Mr. T. Holmes, in his "System of Surgery," Vol. ii. (1870), says, in the article on Burns—

After the fourth or fifth day death may be produced suddenly by an ulcer of the duodenum perforating an artery or the peritoneum. In some of these cases, ulcers of the duodenum have been found, and vomiting has preceded death ; but this hardly accounts for the rapidly fatal and unexpected seizure.

Intestinal ulceration is a sufficiently common phenomenon in every period of burns and scalds.

Of the 125 miscellaneous fatal cases, from which this account has been compiled, 16 presented ulceration in the duodenum, five of whom died during the first week (four days being the earliest period), five in the second week, and the other six after longer periods.

The appearance is that of a perfectly indolent ulcer ; it is usually seated just below the pylorus ; often there are two or three close together ; the edges of the ulcers are not raised or everted, &c., &c. . . . But when the ulcer has penetrated more deeply, so as to threaten perforation of the gut, lymph may often be found effused on its peritoneal surface ; a natural barrier to the fatal progress of the disease.

From the facts then, that cicatrised ulcers are sometimes found in patients who have died of other complications, that the lesion does not of itself produce any symptoms of dangerous disturbance of the health, and that it is frequently discovered in cases where it would never have been suspected, I am inclined to think that it may be present in many of the cases which recover, and that its importance in practice has been exaggerated.

From the above quotations it would appear that opinions

differ among those who have the best opportunities of judging, and that these ulcers are certainly not common. In the case I have above recorded, the ulcer seems to have formed unusually early, and not to have been the *cause* of death, as the presence of effused lymph showed an effort at repair, and the adhesion partly formed to the pancreas prevented the escape of foreign matters into the abdominal cavity.

Speculation has long been rife as to the causation of these ulcers, and I do not presume to speak with any authority on the matter, but if I were to venture an opinion, it would be in this fashion. After a person is burnt or scalded, the effects of the shock are seen principally in one of three ways—either in some affection of the brain, the lungs, or the gastrointestinal system, and according as one or other set of organs is affected, we get either cranial congestion, or bronchitis, or pneumonia, or vomiting and hæmorrhage. If the lungs are involved the other organs probably escape; and if the stomach is attacked, the head and the chest are not affected. If, in the revulsion that ensues after a severe scald, the stomach suffers, there is collapse, vomiting, and perhaps ulceration. The duodenum being as important a part as the stomach, and intimately concerned in the process of digestion, must be the most likely part of the intestine to suffer, and it seems to me that it is not merely from contiguity, but from similarity of function, that it is bound to suffer.

May it not be that the involving of the duodenum is a proof of the violence of the shock which the gastric system has received, and an evidence that the mischief has extended beyond the limits of the stomach, and that the duodenum, as next in importance to the stomach in the process of digestion, suffers accordingly? And may it not be that when the shock is so severe, the affection of the duodenum exhausts the vital energies, so that life becomes extinct before the rest of the small intestines can be implicated?

Notes of Cases in the Ceylon Lunatic Asylum. By J. W. PLAXTON, M.R.C.P., Medical Superintendent.

In the happier times before the folly of exchanging England for Ceylon had overtaken me, General Paralysis had exercised its usual fascination.

Almost the first thing, therefore, to strike me after arrival was its entire absence in Ceylon Asylum.