Family History.—Father and mother are both alive and well. He has been married for twenty-two years and has three healthy children. He has always been well looked after.

This case presents many points of interest. The patient had dilatation of the stomach with no pyloric obstruction, and at a later date diabetes mellitus appeared. Have these two diseases any connexion with each other, or has the diabetes only occurred with dilatation of the stomach as a coincidence?

I should like to show, as has already been pointed out by Mr. Mayo Robson, first that in all probability in this case the stomach affection depended primarily on pancreatic disease, and, secondly, that the diabetes which followed depended upon a still further advanced stage of the pancreatic process.

At the time of the gastro-enterostomy it was found that the dilatation of the stomach did not depend on pyloric ulceration or tumour. It must have been due, then, either to primary atony of the stomach wall or to stricture or pressure on the duodenum at some distance below the pylorus. The fact that the patient was always a healthy man before the onset of the stomach trouble and had never suffered from neurasthenia is rather against simple atony. Granted that the duodenum was at fault, what affections could produce sufficient signs of pressure to cause secondary gastric dilatation? Ulcer could do so, with subsequent cicatricial contraction; but in such a case the patient would have had symptoms of pain in the epigastrium, and possibly melaena, which were entirely absent in this case. Cancer might do so, but that diagnosis could be easily excluded by considering the duration of the illness and the absence of physical signs. In both these conditions of the duodenum the pancreas could have been secondarily affected, giving rise to a new set of symptoms depending on pancreatic disease. These possibilities I think can be excluded.

The only other cause of duodenal stricture is pressure from without. The duodenum may be pressed upon by tumours in the abdomen, or may have its calibre interfered with by strands of coarse fibres depending upon old-standing inflammations with adhesions. In the patient under consideration, from the history and from the physical examination, there was no evidence of any liver, omental, or peritoneal disease, nor was the gall bladder at any time enlarged. Diseases of the pancreas, however, could cause pressure against the duodenum; but abscesses, cysts, and tumours of that organ would have manifested themselves by physical examination.

We are left, then, with one other important pancreatic disease which cannot be diagnosed by physical methods, and yet is capable of producing pressure on the duodenum, narrowing its calibre, and, as a result, inducing all the gastric phenomena that were present in this case. In chronic pancreatitis the head of the gland may partly embrace a portion of the duodenum and thereby cause almost complete stricture of the lumen of the bowel. I wish to emphasize the probability, then, that in the case under consideration the cause of the stomach dilatation was in the first instance pancreatitis. Had Cammidge's reaction been taken at this time I have little doubt it would have been positive. It was not, however, until the sudden onset of diabetes that the pancreas was suspected of being the seat of the mischief. The test was performed by an expert, with every precaution taken to prevent fallacy in making the test. It was positive, and corroborated surmises which before could not be definitely proved. Two other signs of chronic pancreatitis naturally presented themselves to my mind—a fatty character of the motions and jaundice. A chemical analysis of the faeces was not made for unsaponified neutral fat, but the appearance of the motions suggested excess of fat and fatty substances. Jaundice was never present, which was unusual, as the bile duct, as a rule, is pressed upon, and causes obstructive or catarrhal jaundice. The outstanding symptoms and signs were the dilatation of the stomach, the marked wasting, the character of the motions, the pancreatic reaction, and, lastly, diabetes.

Diabetes is an uncommon accompaniment of pancreatic disease, and when it does occur it indicates an extensive involvement of the parenchyma of the pancreas. Mr. Mayo Robson says that "the appearance of sugar in the urine, along with other signs of disease of the pancreas, points to a widespread and advanced lesion." The islands

of Langerhans, which are supposed to yield an interna secretion that is capable of exerting an influence over carbohydrate metabolism, become cut off, or their cells are replaced by connective tissue. An interacinar cirrhosis is set up, and Opie has shown that a hyaline metamorphosis is often strictly limited to the islands of Langerhans, while the glandular acini remain intact.

This case presented a somewhat interesting picture of a chronic inflammatory affection of the pancreas, giving rise in the first instance to gastric symptoms, relieved partly by gastro-enterostomy, and, in the second place, by alteration in the bulk of its substance, to diabetes mellitus. The etiological factor in the production of a primary interstitial pancreatitis is not yet known, but no doubt it bears some close relationship to cirrhosis occurring in other organs. The patient is rapidly losing flesh and strength, and although no grave complications of diabetes have as yet manifested themselves, little improvement can be expected either by medicinal or surgical measures.

In conclusion, let me add that I believe the operation of gastro-enterostomy in this case served one useful purpose—it prevented most likely the onset of "gastric tetany." All the elements conducive to gastric tetany were present—dilatation of the stomach with free hydrochloric acid, and prolonged dehydration of the tissues from the diabetes. As I have shown elsewhere, autointoxication and dehydration of the tissues play an important part in causing "gastric tetany," and in all these cases a gastro-enterostomy has diminished the mortality of the disease.

REFERENCE.

¹ BRITISH MEDICAL JOURNAL, 1908, vol. i, p. 1153.

THE CAUSATION OF INGROWING TOENAIL, AND THE LOCATION OF GOUT.

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THE textbooks usually describe the cause of this inconvenient, uncomfortable, and painful condition as being tight and badly-fitting boots.

If tight boots are the cause, then all the ladies of the land should be sufferers, and chiropody should be a valuable branch of surgery. If badly-fitting boots are the cause, then all the children in cottage homes and most charitable institutions should be sufferers. With so universal a cause, ingrowing toenail ought to be much more prevalent than it is, and on both feet.

I venture to suggest that a more likely cause is the position of the foot during sleep. Most people sleep on their side, but were they asked how they placed their feet, very few could give a correct answer.

What usually happens is that a person on first taking up the side position, places his two feet side by side, but in a very short time the upper one slips down on to the bed, so as to lie wholly or partially on the bed alongside the other. If it slides but a short way, then it lies with its weight resting on the toes, and it is this constant pressure on the side of the big toe during hours of unconsciousness, that gives rise to the pathological condition.

Most persons at some period have experienced what is popularly known as the "fidgets" when getting into bed in an irritable and disturbed condition; they are restless, and do not know what to do with their feet, and at some stage they would notice, were they so disposed, that the upper foot was twisted round the lower one, with the big toe dug into the bed.

Most of the cases I have treated have suffered with the left foot, but in those persons who have had the right toenail affected I found the habit of sleeping on their left side. One patient I had with both nails ingrowing, but he was a ship's officer who had the habit of digging both feet against the side of his bunk.

The accompanying photographs may help to make the matter a little clearer.

Fig. 1 illustrates a position very commonly taken up by sleepers, and shows the pressure to which the big toe is subjected; sufficient to bend it out of the normal position. Fig. 2 shows the foot of a much older patient and the result of pressure exerted for many years.

One can understand from an examination of Fig. 1 the strain to which the joint at the ball of the big toe is

subjected, and in a person with an approaching attack of gout it is easy to understand why it is that a joint that has been under such continuous strain for about five hours

Fig. 1.

should be the spot selected at five o'clock in the morning for the exhibition of the most typical symptom.

One member of the profession, on hearing my suggestion as to the cause of ingrowing toenail, facetiously suggested

Fig. 2.

that we had better go to bed with our boots on; but, although we cannot all follow him in that habit, I venture to think that ingrowing toenail might be warded off, especially in children, by the wearing of a specially made toecap.

THE EFFECTIVE TREATMENT OF ACUTE AND SUBACUTE RHEUMATISM.*

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[WITH SPECIAL PLATE.]

THE title of this paper is intended to imply that the treatment of acute and subacute rheumatism, as advised in the textbooks and as usually carried out in practice, is inadequate and unsatisfactory. It is true that a great advance has been made since the days when it was maintained that cases of this disease did as well upon mint-water or upon lemon-juice as with any powerful drugs. In those days, as some of us can remember, there was no great exaggeration in the story of the physician who was asked "What is good for rheumatism?" and who replied, "Six weeks." At that time it was common for rheumatic patients to remain in hospital for weeks, and the very painful and persistent arthritis, with the profuse acid sweats, formed a clinical picture which is now not seen in hospital wards. Fatal hyperpyrexia, now extremely rare, was then not uncommon. There was, however, even then reason for thinking that treatment by alkalies was of some distinct advantage, in spite of the fact that the alkali employed was generally a salt of potash, and therefore not free from depressing effects, and that it was administered only in small quantities. An investigation of the clinical records of Guy's Hospital, which I made in 1874 as the basis of my thesis for the Cambridge M.B. degree, seemed to me to show clearly that the alkaline treatment certainly gave the best results. Yet these results left much to be desired, and the ineffectiveness of the treatment of acute rheumatism was one of the reproaches of medicine.

* Read before the Therapeutical Section of the Royal Society of Medicine, December 1st, 1908.

It is clearly seen by us all, how great an improvement has been effected by the introduction of salicylate of soda. The rapid relief of pain, the fall of temperature, and the shortened duration of the illness are results which follow, we all agree, the administration of this drug. Yet the remedy, it must be confessed, has some side-effects which are annoying and which tend to limit its usefulness. Without much investigation whether these hindrances could be removed by some modification of the method of administration, physicians have been inclined to desert the simple salicylate in favour of some of the organic compounds of salicylic acid provided for us by the ingenuity of German chemists. But the most commonly used of these, acetyl-salicylic acid, the so-called "aspirin," cannot be combined with an alkali, hence we are at once deprived of a useful ally of sodium salicylate; and though free from some of the side-effects of salicylate, it may produce the most dangerous symptoms of salicylate poisoning, as proved by the case of the girl which I have elsewhere narrated who became comatose with typical "air hunger" after seven 15-grain doses of aspirin given in two and one-third days.

The use of sodium salicylate is also hindered by the superstition still prevalent among us that it is a depressant to the heart. The origin of this mischievous notion was probably due, in the first place, to impurities in the drug when a large demand suddenly arose through its early reputation as an antirheumatic. But the drug as now supplied to hospitals is of great purity, and careful observation of its effects for many years enables me to say deliberately that, when given to a rheumatic patient, it does not cause any weakening of the cardiac action. But it must be remembered that the rheumatic toxæmia itself always causes more or less cardiac weakening, and that this may sometimes become specially manifest. If at the time salicylate is being taken, the remedy is almost certain to be blamed for what is in reality one of the effects of the disease. It must be borne in mind, first, that a similar cardiac failure occurs in diphtheria and in influenza, quite apart from the action of any drug, and, secondly, that in every case of acute or subacute rheumatism the cardiac muscle suffers more or less. Endocarditis occurs only in a certain number of cases, and pericarditis is still less common, but the existence of a dilatation of the left ventricle can always be proved by careful percussion. Since I brought forward evidence of this fact before this society in 1898 I have never seen a case of acute or subacute rheumatism, in a child or in an adult, in which dilatation of the left ventricle did not exist. It appears to be invariably present in this disease. For a recent confirmation of this fact I may refer to the instructive article on rheumatic myocarditis contributed to the last number of the *Quarterly Journal of Medicine* (vol. ii, No. 5), by my friend and former house-physician, Dr. Carey Coombs, of Bristol.

The idea that sodium salicylate was a cardiac depressant, conjoined with the frequent difficulties in its administration, have caused physicians to give it only in small doses, and to discontinue its use as soon as or soon after the painful arthritis had subsided and the temperature fallen. It is a common experience that with this method relapses of rheumatic symptoms, in one form or another, have been frequent. It is also a common experience that often the temperature does not fall permanently to the normal, but that the evening temperature persistently rises to 99° or 100°, sometimes for a considerable period, especially in children; this should never be disregarded, for it means that the rheumatism is still active. It is therefore clear that the present treatment of rheumatism is inadequate, for though it controls it does not completely arrest the disease.

But it is not merely inadequate; it is also unsatisfactory, for it aims almost entirely at the cure of the painful arthritis, and pays little or no heed to the heart. It despairs of any real influence on the condition of this organ; it has no hope of diminishing a rheumatic endocarditis, and it usually ignores altogether the affection of the cardiac muscle. This is largely due to the fact that the earlier descriptions of acute rheumatism were the result of observations of the disease not in a children's hospital, but in hospitals for adults. Hence the present absurd arrangement of the textbooks, in which a description of its characteristics in adults is followed by an