forward healing was obtained in a number of cases in which there was some degree of initial sepsis. In five cases the result has been classified as only "fair," more on account of the fact that some sepsis was encountered during treatment than because the eventual result was not satisfactory. Only in two of these five cases was it necessary to substitute stronger antiseptic measures for a day or two during the course of the treatment. Further, it will be noted from Table A that in three of these patients initial sepsis of more or less marked degree was present when they first attended, and in another the burn was a deep and extensive one on the forearm (No. 40). One other case (No. 7) calls for special mention. This patient was an epileptic, and sustained a third-degree burn of relatively small size, but situated in the avascular scar of an old burn of the leg. Healing was accordingly slow, and he had to attend for sixty-five days.

Illustrative Cases

Case I (No. 24).—The patient was a female aged 38. She was seen on April 8, 1936, two hours after a scalding accident to the right leg. Examination showed a four-inch by three-inch second-degree lesion above the right internal malleolus. Primary dressings as above. Healing progressed very satisfactorily, with no exudation through the surface gauze layers. A photograph taken on April 27 shows the surface gauze in position, and a second one, taken on May 5, after the gauze had separated spontaneously, shows a perfectly healed skin area with slight scaling in its centre (see Special Plate). No pain throughout.

Case II (No. 16).—The patient was a male aged 38. He sustained second-degree burns of the face, neck, and whole length of the left forearm, caused by a blow-back from a furnace. The accident occurred on March 23, 1936, and he attended hospital one hour later. The raised epithelium was removed and the surfaces cleansed with saline. Amyl salicylate and abracide dressings were applied. The gauze layers in actual contact with the raw surfaces were left intact, and only the top layers were changed at three- and four-day intervals. Progress was rapid. By March 30 the lesions on the face and neck were healed, and by April 7 the forearm was likewise fully healed. No pain throughout. Comment: A recent, clean second-degree burn; primary surface dressing remained *in situ*.

Case III (No. 39).—A girl aged 16 was scalded on the right foot on June 4, 1936. A thick layer of flour was applied at home, and she attended hospital on June 5. Examination showed an extensive, moist, mildly infected second-degree lesion over the dorsum of the foot and the front of the ankle. In this case there was some exudation, so that the whole thickness of the dressings had to be changed three days later. Thereafter, though there was a minor degree of exudation, the deep surface gauze was left intact and healing progressed satisfactorily, being complete by June 29. There was some discomfort during the first five days of treatment. Comment: A mildly infected injury of twenty-four hours' duration, which, however, progressed satisfactorily.

Case IV (No. 34).—A woman aged 40 attended on May 28, 1936, with a five-days-old second-to-third-degree lesion on the foot caused by a scald. There was a brown slough in the centre and the surrounding skin was congested and swollen. Considerable pain. After gentle cleansing amyl salicylate and abracide dressings were applied. Owing to the nature of the case there was considerable exudation of sero-pus, and the whole thickness of the dressings had to be changed at four-day intervals. By June 15 the condition was painless and the surface very clean. Healing was complete by June 29. Comment: A quite markedly infected burn treated throughout by amyl salicylate and abracide.

Summary

1. Clinical tests in a hospital out-patient department have indicated that amyl salicylate possesses analgesic

properties, and can be satisfactorily employed in the treatment of minor burns.

2. It lacks the coagulant effect of tannic acid on the tissues, and is therefore unsuited to the treatment of severe and extensive burns where there is a danger of toxæmia and shock.

3. The ester has little if any bactericidal power, and it therefore requires the addition of an antiseptic. In this series a mixture of isomeric substituted phenols, known by the trade name "abracide," has proved suitable.

4. The method is applicable to the treatment of infected as well as non-infected burns and scalds, provided the initial infection is not too severe.

5. Standardization of technique is very necessary if the best results are to be obtained.

6. Amyl salicylate has an extremely penetrating smell, but the results obtained with other less pungent salicyl esters have been inferior.

I am indebted to Dr. T. H. Durrans, director of research and development to Messrs. A. Boake, Roberts and Co. Ltd., for advice and assistance throughout the inquiry. I am also sincerely grateful to Sister Dewar of the surgical out-patient department of the Edinburgh Royal Infirmary; without her constant supervision of the work of her staff the investigation would have been impossible.

A NOTE ON LITHOPAEDION WITH REPORT OF A CASE

BY

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(WITH SPECIAL PLATE)

Of all pathological conditions lithopaedion probably excites the most curiosity, and for this reason few cases escape being reported. In spite of this tendency to over-publicity the number of cases in the literature is relatively few. For instance, up to 1933 the total was 196 cases, and the number added since then is insignificant. Another illustration of its rarity is derived from the figures of the Mayo Clinic for the years 1903 to 1926. During this period nine lithopaedions were found in 445 cases of extra-uterine pregnancy. The incidence of 2 per cent. is probably the highest that will ever be recorded, as with increased recognition of a retained foetus lithopaedion formation will become still more rare. The paucity of cases is not surprising when one considers the combination of circumstances which must be present before a lithopaedion can be formed.

First, the pregnancy must be extra-uterine. It is true that about half a dozen cases of intra-uterine lithopaedions are reported in the very early literature, but since none have appeared within the last hundred years it is rational to view their authenticity with extreme scepticism. Nor is it possible to discover a case of lithopaedion in the record of pregnancies in bicornuate uteri. Even in a case in which almost full-term twins were retained for twenty years in a bicornuate uterus there was skeletonization, but no calcification.

Secondly, the foetus must survive for longer than three months. If death occurs while the bones are cartilaginous absorption will be rapid and complete. In tubal pregnancy advanced development is rare, and if the tube ruptures on its free side the embryo usually dies in the peritoneal cavity. But secondary intraligamentous implantation is said to favour survival.

Thirdly, the condition must escape medical notice, else it will be terminated by operation; also the mother must survive long enough for calcification to occur. The shortest recorded period is fourteen months from conception, but usually it is many years before the discovery is made.

Fourthly, the foetus must remain sterile. Infection will certainly produce absorption, and moreover will lead to symptoms necessitating operation.

Fifthly, the necessary conditions for deposition of calcium in the tissues must be present. What these conditions are is not fully understood, but an important factor appears to be a sluggish local circulation. In this connexion it is significant that in almost every case of lithopaedion no trace of placenta could be found. An exception to this is recorded by Clark, who found a large necrotic friable placenta attached to the pelvis. In his case, however, there were only a few patches of calcareous matter sparingly interspersed through the external portions of the tissues and in the enveloping membrane.

It would seem probable that the absence of calcification in foetuses retained in a bicornuate uterus, even after the lapse of many years, is explicable on the grounds that the circulation is too good for these changes to occur.

Classification of Lithopaedions and Diagnosis

The sites in which calcium is laid down have formed the basis of a classification of lithopaedions into three types.

1. *Lithokelyphos*.—The membranes alone are calcified and not adherent to the foetus. The foetus may be unchanged, mummified, or skeletonized. This type is supposed to be due to the membranes remaining intact at the termination of pregnancy.

2. *Lithokelyphopaedion*.—The membranes and foetus are calcified and are adherent to one another. This type follows the escape or absorption of amniotic fluid.

3. *Lithotecnon* (true lithopaedion).—The foetus alone is calcified, the deposition of lime salts starting in the vernix caseosa. The escape of the foetus into the abdominal cavity, leaving its membranes behind, is said to account for this type.

Lithokelyphopaedion is probably the most common of the three.

The discovery of a lithopaedion is often accidental—in the course of clinical examination or radiographic investigation, or at post-mortem. The patient may be unaware of her condition. The usual history is of a "mock labour" followed by gradual decrease in the size of the abdomen and the return of menstruation. Progressive shrinking of a full-term foetus to a calcified mass the size of a fist has been observed radiographically by Santé and Emmert. On palpation of the abdomen a hard mass may be felt above the pubis. Sometimes the patient knows of its existence, but attaches no importance to it on account of the absence of pain or discomfort.

In 60 per cent. of cases late symptoms occur. There may be mild abdominal pain, sense of fullness in the pelvis, cystitis, vaginal discharge, and sciatica and constipation from intrapelvic pressure. Abdominal adhesions and rupture of the lithopaedion into adjacent viscera are the commoner serious complications. Diagnosis by radiography is usually simple. The presence of foetal limbs distinguishes the shadows from those of calcified fibroids or dermoid cysts. Compression of the foetus is the rule. There is overlapping of the cranial bones and often an acute dorsal or cervical kyphosis. Distribution of the calcified areas varies with the type of lithopaedion.

Present Case

An obese woman, aged 83, complained of pain in the left hip as the result of a fall. She was referred to me for x-ray examination. The radiograph showed a crushed fracture of the greater trochanter, and also dense shadows in the pelvis. Some of these shadows were obviously of foetal bones. I endeavoured to get the patient to return for a thorough examination of the pelvis, but she would not consent. A few days later she died of cerebral haemorrhage. Her only relative, a niece aged about 50, refused permission for a post-mortem investigation, but agreed to an x-ray examination of the body. She informed me that her aunt had been a particularly healthy woman who had hardly ever required medical attention. There was one child born about fifty years previously. The niece remembered that some time after the birth of this child her aunt thought that she was again pregnant. However, labour did not come on and the incident was forgotten. The date of this pregnancy is not known, but it is likely to be more than forty-five years ago.

On palpation of the abdomen, when the body was brought for x-ray examination, I found a large, hard, smooth swelling resembling a foetal head above the pubis. The antero-posterior view shows a calcified full-term foetus lying on its left side in the pelvis. The head is to the right and the back to the left of the midline. The arms and legs are flexed. The lateral view shows the breech lying in the hollow of the sacrum. The head and thorax are above the pelvic brim. The head is acutely flexed on the chest. This view makes it obvious that the hard mass felt above the pubis was the back of the neck and shoulders and not the head. There is very slight overlapping of the cranial bones, but it is not sufficient to decrease materially the size of the foetal skull. The thoracic and lumbar spines are almost straight.

Calcification is chiefly in the membranes, which appear to be about the thickness of a foetal rib. Calcification is also seen in the tissues, especially in the arms. Thus the lithopaedion may be classified under the type known as *lithokelyphopaedion*.

I am indebted to Dr. Leggatt of Newbury for permission to publish the case, and to Mr. A. O. Forder, Royal Berkshire Hospital, Reading, for the radiographic prints.

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J. Dörfel and W. Lutterberg (*Derm. Wschr.*, January 2, 1937, p. 1) review the different causes of sterility in men. Collected statistics show that bilateral gonorrhoeic epididymitis is responsible for 50 to 100 per cent. of azoospermia. The authors think that only those statistics are useful which are based on the examination of the ejaculated semen in all cases of bilateral epididymitis, and not only in cases which come for examination as a result of alleged sterility. The authors' personal investigations have shown sterility to occur in about 50 per cent. of all cases of bilateral epididymitis. Recanalization of the duct occurs only very rarely. Azoospermia was found also in a number of cases of unilateral epididymitis and also in certain constitutional disturbances. There seems to be a relationship, too, between excessive smoking and azoospermia.

N. HAMILTON FAIRLEY AND F. P. MACKIE: THE
CLINICAL AND BIOCHEMICAL SYNDROME IN LYMPH-
ADENOMA AND ALLIED DISEASES

Lymphoma of the mesenteric lymph glands associated with lymph stasis and a sprue-like syndrome. (Case I.)

PAUL CAVE: CASE OF LITHOPAEDION

Antero-posterior view.

R. LESLIE STEWART: TREATMENT OF MINOR BURNS BY AMYL SALICYLATE AND OTHER
SALICYL ESTERS

FIG. 1.—Case I (No. 24). Scald on leg. Primary surface dressing still adherent nineteen days after commencement of treatment.

FIG. 2.—Case I (No. 24). Eight days later. The primary gauze layer has been shed. The injury is perfectly healed with slight surface scaling seen in the centre.