was then made in the lower part of the arm. The artery was here found to be contracted and non-pulsatile, and the embolus was felt under the upper corner of the incision. The artery was opened below the embolus, which on removal was found to be 3/4 in. (1.9 cm.) long. Blood was allowed to escape for a moment to wash the artery through. As the vessel was still in spasm suturing was by no means easy. The usual technique was employed.

Post-operative Course and Treatment.—She was given 200 mg. of dicoumarol and 10,000 units of heparin at once, followed by 5,000 units of heparin six-hourly for six doses. By this time the prothrombin index was 70% of normal and the prothrombin time was 44.4% above normal. Treatment for the heart condition was also employed. The patient was desperately ill for some days, and it seemed doubtful if she would survive. The pulse at the left wrist became faintly perceptible some fourteen hours after operation. She responded to treatment for her heart condition, and six days after operation her general condition was greatly improved and she had a strong pulse at the left wrist.

On Dec. 4 she had a sudden attack of dyspnoea with pain in the chest, which was attributed to a small pulmonary embolus; presumably thrombosis had also taken place in the right auricle. On Dec. 7 she had a sudden sharp pain in the right leg, which became cold and blue from the knee downwards. Pulsation was present in both femoral arteries and in the left dorsalis pedis artery. Vigorous pulsation could be felt in the right popliteal artery as far down as the middle of the knee-joint, where it ceased abruptly. A diagnosis of popliteal embolism was made.

Second Operation (Dec. 7).—Again under local analgesia the right popliteal artery was exposed and an embolus measuring 1½ in. (3.75 cm.) in length was removed from the bifurcation of the artery. Dicoumarol and heparin were employed in similar dosage to that after the first operation. The leg rapidly recovered normal colour and warmth, and pain was relieved. Although the dorsalis pedis was not palpable, it was obvious in a few days that the circulation of the limb was satisfactory. The wound gaped after removal of stitches and had to be resutured on Jan. 21, 1947, under local analgesia. The heart condition improved gradually, and no further embolism had occurred when the patient was discharged on March 10, able to walk and take a moderate amount of exercise. Throughout the whole illness she had been an extremely plucky and co-operative patient.

Most surgeons now recognize the merit of early embolectomy in such cases, but there may still be many practitioners in this country who are inclined to adopt conservative measures, thus losing the six to ten vital hours within which a successful operation may be performed.

I am indebted to the physicians of the hospital, especially Drs. Pounds and Jelliffe, who undertook the medical treatment of the patient.

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The "Kang Cancer" of North-West China

The "kang," or heated brick-bed, of Northern China has been described by many travellers, but the common and striking form of epithelioma associated with its habitual use has received little notice in the literature of malignant disease.

I spent the early part of 1947 at Lanchow, the chief city of Kansu Province in North-West China, and encountered "kang cancer" on five occasions; I was assured by many people that it is a common and widespread clinical entity throughout that area. The "kang," or oven-bed, is widely used by Chinese, Tibetans, and others to counteract the intense cold of winter in the high altitudes. It takes various forms, but is usually built of bricks or mud, and forms a hollow platform, 18 in. (45 cm.) or so in height, covered with loose wooden boards. Sometimes the boards have to be moved to make up the fire; sometimes an external grate in the outer wall of the house allows it to be stoked up from outside. The fuel used may be coal, charcoal, or dung. The whole platform is covered with felts and quilts, and forms not only a communal bed but the place where the occupants of the house spend their leisure and eat their meals.

From personal experience—I have, when travelling, slept upon kangs in both Chinese and Tibetan households—I can testify to the comforting warmth of such a bed, even though the hardness of the boards and the acrid smoke escaping between them may be somewhat trying at times.

"Kang cancer" is a squamous-celled carcinoma arising in the skin over the great trochanter, and is probably in most cases a malignant degeneration occurring in a chronic burn scar. It may be compared with the much better known "kangri" epithelioma of Kashmir, which is caused by the constant irritation of a small portable brazier. Occasionally the "kang cancer" may arise over the os calcis or the olecranon, but I have not seen it in either of these sites.

Of the five cases that I saw one was an enormous ulcer of the thigh and buttock associated with malignant recurrence after late surgery, three were papillomatous tumours with broad bases and without ulceration, and the fifth was a small scirrhous ulcer with a nodular floor and raised irregular edges. The first four occurred in middle-aged men and were all in the right hip region. The fifth was in a very old woman and was on the left side. All except the first were treated by radical excision and skin-grafting.

A TYPICAL HISTORY

Mr. S. K. Wang, a Chinese opium-smoker aged 60, came from Lo T'u village (Tsinghai). He stated that he always slept on a kang, in which he burnt horse dung, and that he always slept on his right side. His only complaint was of a lesion over the right great trochanter which had been present for four years. He was quite healthy, apart from a large papillomatous tumour (see photograph) growing in the skin over, but not adherent to, the right great

Fig. 1
Fig. 2
Papillomatous epithelioma ("kang cancer") in a 60-year-old Chinese opium-smoker.

trochanter. The inguinal lymph glands were not abnormally palpable and were soft. Operation was carried out on May 28, 1947, under spinal analgesia, and consisted of wide excision of the tumour together with 1½ in. (3.75 cm.) of skin all round and all tissues down to and including the deep fascia. Thiersch grafts were applied after three days, and the subsequent progress was uncomplicated.

COMMENT

The association with opium smoking is to be noted. A man is naturally more likely to burn himself unawares while under the influence of this drug, and it is presumed that the "kang cancer" is caused by chronic irritation (by friction and heat) of a burn cicatrix rather than by a carcinogenetic stimulant in the smoke. The development of epithelioma in scars has been known since Marjolin's classical description in 1828. Two types of epithelioma occurring in scars—papillomatous and ulcerating—were described by von Brunn (1903), and correspond with the two types in my five Lanchow cases. The prognosis of such epitheliomata is relatively good. This, as pointed out by Iwamoto (1926), is because the underlying scar tissue discourages penetration by the neoplasm, which tends instead to spread out on the surface.

My acquaintance with this lesion was made during a quite brief visit to inland China. I am sure that anyone interested in the condition and permanently resident in this region could easily collect a large series of cases and study in much greater detail this locally abundant tumour, which is easily amenable to treatment and should be both preventable and easy to detect in its earliest stages.

H. T. LAYCOCK, F.R.C.S.

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