Amputation at the hip-joint / by J. Fayrer.

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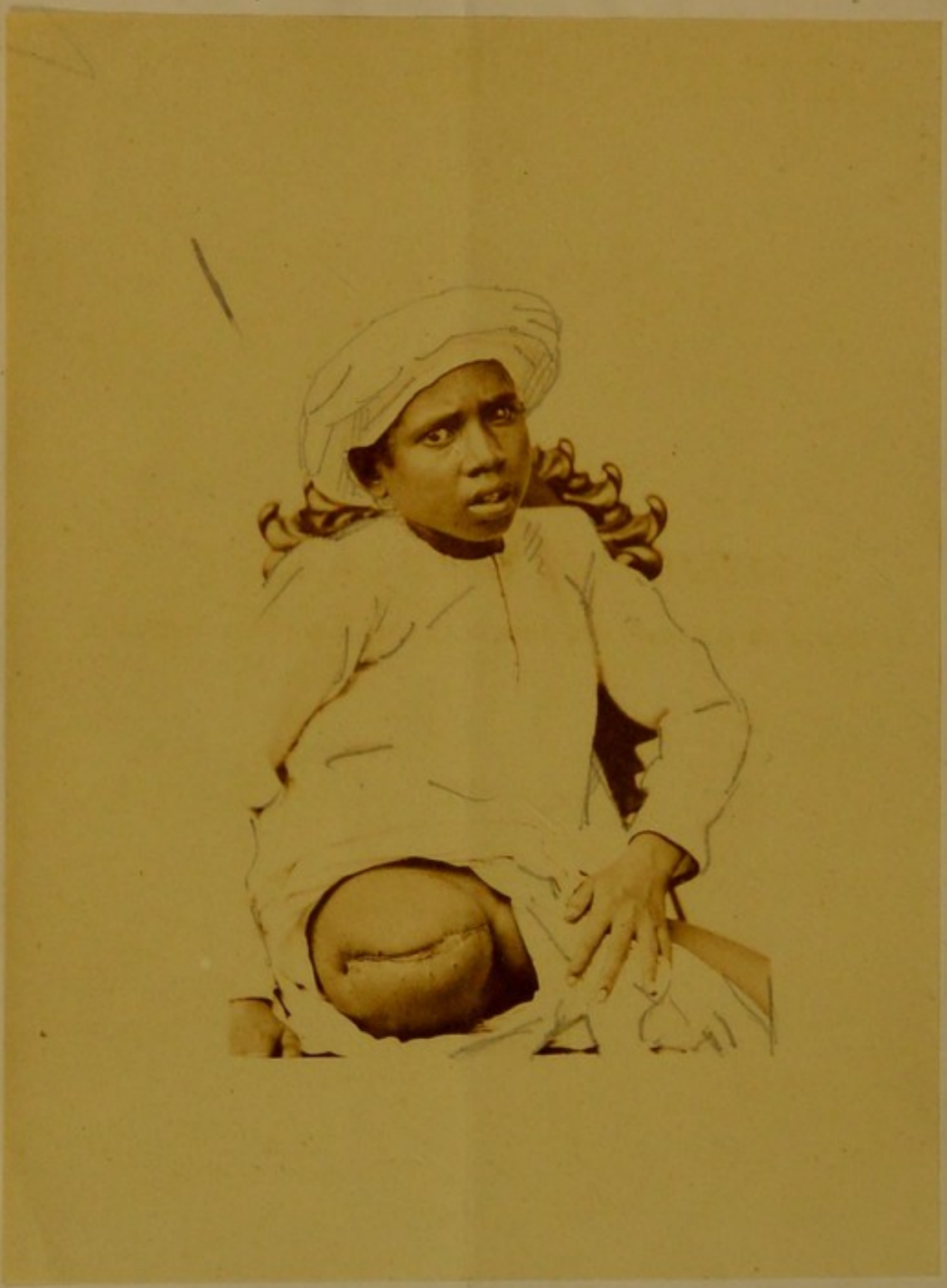

AMPUTATION AT THE HIP-JOINT.

BY

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AMPUTATION AT THE HIP-JOINT.

Amputations at the hip-joint are so rare, that each case, successful or unsuccessful, should be recorded. I have therefore given the following in detail, as it presents many points of interest.

As far as I can ascertain, it is the second successful case recorded in India. The first, of which I can find any notice, is that related in the Lancet, Vol. I, page 411 of 1850, by Mr. Wigstrom, of the 14th Dragoons, who operated successfully, by antero posterior flaps, in November 1849, on a patient who was suffering from diseased femur and profuse suppuration, extending nearly to the hip.

In February 1853 I also operated in a case of gun-shot wound of the head and neck of the femur, and this, though death ensued, may fairly, as far as the operation was concerned, be recorded as successful, for the patient died, not* of the operation, but of Tetanus, a month after the amputation, when the wound was all but healed.

The case I now record is interesting, not only for its own sake, as an amputation at the hip-joint, but because it was a secondary amputation following that of the thigh, and performed when the patient was very low, suffering from clear indications of blood contamination, the result of a diseased condition of the Medulla,† which is unfortunately frequent here after section of the long bones, and the cause of many unsuccessful amputations.

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* Amputated 16th February. Died of Tetanus 17th March 1853.

† Osteo Myelitis.

I have noticed this subject more at length in another communication to the "Annals," but I may here remark that the present case is a good illustration of the disease Osteo Myelitis and the constitutional and local symptoms it gives rise to, it also clearly demonstrates the advantage of amputating above the next joint to the bone affected, provided the operation be performed before the systemic poisoning have gone too far.

I regard the details of this case as so interesting, in both a surgical and pathological point of view, that I have not hesitated to give them in extenso, though, as a general rule, such prolixity is objectionable.

It is to be remarked that the operation was performed, and the recovery occurred, at a very hot season of the year, the Thermometer ranging from 86° to 104°. Cholera and other diseases very prevalent at the time.

Shekh Asghur, aged 16 years, a slight and somewhat delicate lad, a carriage driver by trade; accustomed to drink 6 or 8 ounces of Bazar spirit daily, thin, sallow-looking, and with congenital cataract in the left eye, was admitted into the Medical College Hospital on the night of the 10th April 1864, suffering from injuries sustained by a fall from a horse which trampled on, or kicked him, after he fell.

He had a wound on the chin slightly exposing the bone,* one on the lip, and some smaller ones on other parts of the body. The most severe injury was on the inner aspect of the right knee-joint, the integument being torn and bruised, the muscles and tendinous structures exposed to the extent of 3½ by 2½ inches. The joint injured, but not apparently opened, though it appeared probable that the bruised tissues would slough and open it.

* From which, subsequently, a small piece of bone exfoliated.

He had had a good deal of pain and serous discharge. Ordered cold applications and perfect rest of the limb on a splint. The other wounds were also dressed.

April 12*th.*—The wound again carefully examined, and through the bruised and injured tissues the joint was felt, the point of the finger passing into it; the inner condyle of the femur roughened; fluid collecting in the joint; pulse quick; no pain. In consultation with Mr. Partridge, I decided on amputation.

At 9 A. M. I removed the limb, under Chloroform, by modified circular amputation at the lower third of the thigh. All bleeding points being secured, the edges of the flaps were secured by metal sutures.

I observed that the muscles at the posterior aspect of the thigh had a bruised and discolored appearance.

April 13*th.* 8 A. M.—Is feverish; pulse 120°; no hemorrhage; tongue moist. Ordered cold applications to the stump, perfect quiet, diet of milk and sago.

14*th.*—No fever this morning. The posterior part of the stump is gangrenous to a small extent, corresponding to the discoloration of the muscles observed during the amputation.

15*th.*—The sutures have given way and the interior of the stump is exposed. It is somewhat sloughy in appearance; the end of the bone is denuded of periosteum and necrosed; medulla discolored at the point of section, may be living below the surface. I observed during the amputation that the periosteum and the bone were both healthy, and that the membrane adhered closely to the bone at the line of division; most of the ligatures on the smaller vessels came away to day. He had slight fever yesterday evening, but has none now; pulse 100°.

Ordered nutritious diet. Port Wine 4 ounces. Let the stump be kept washed with a weak solution of chloride of zinc.

16*th.*—Pulse 100°; tongue clean. Had no fever yesterday; took his food well; stump cleaning; gangrene not extending. Continue the treatment of yesterday.

17*th.*—Pulse 100°; stump cleaning; takes his food fairly; Bowels loose. Continue all as yesterday.

18*th.*—Pulse 100°; tongue clean; bowels regular; stump cleaning; a considerable portion of the bone, especially one side of it, denuded of periosteum. The state of the medulla is not discernible, as the end is discolored.

19*th.*—Pulse a little over 100°; soft parts of the stump look well; sloughs have separated (they were very superficial). Ligatures have all come away. On one side the periosteum is adherent almost to the end of the bone, on the other it is denuded for more than two inches; the bone is dry and I fear dead. Passed a long probe into the medulla; it entered four inches of dead and putrid tissue. I fear the shaft is diseased throughout; Osteo-myelitis from end to end.

His system is not yet much affected; no diarrhœa; tongue clean; good appetite. Pulse 106 to 108°.

20*th.*—Pulse 100°; has a peculiar thrill; stump looks clean and healthy with the dry half dead bone protruding from the centre. Has taken his food well. Continue all as usual.

21*st.*—Soft parts red and granulating, discharging healthy pus; one side of the bone covered with granulations, the other bare and dead. Bullet probe passes fully ten inches down the medulla in dead fœtid matter. At that distance it seems to be sensitive; it must be close to the epiphysis. There is a chance that Nature may limit the mischief there; but can so

large a mass of bone be thrown off? The alternative is death or amputation at the hip.

Pulse this morning is 104°; tongue clean; bowels regular; takes his food well; on the whole he does not look so bad, but there is a nasty thrill about the pulse, which is excitable and quickens easily.

22*nd*.—Pulse has risen to 120°; skin heated in evening. Continue all as usual.

23*rd*.—Pulse this morning over 130°, very excitable, quickens to 160°, and falls again, with a peculiar thrill. He has had diarrhœa since yesterday, and fever in evening; the House Surgeon gave him astringents in addition to the Port Wine.

24*th*.—Pulse over 140° this morning, and of the same character as yesterday. A probe passes down to the head of the bone and causes pain there.

He is feverish; tongue moist, but the papillæ are becoming obliterated.

The diarrhœa continues, and he has a peculiar tremor of the muscles all over the body. Sonorous rāles in the thorax, with cough, but no hepatic or abdominal tenderness.

In consultation with Professors Chevers and Partridge, I determined to amputate, either through the trochanters, or at the Hip joint, to be determined when the bone was exposed and its condition examined.

The operation was performed at 9 A. M., under chloroform administered by Mr. Hayes. The knife was entered a little above and in front of the great trochanter, it emerged at the root of the scrotum. The flap being raised, the femoral artery was tied before the posterior flap was cut; on dividing the bone at the great trochanter, drops of pus oozed out of its

cancellated tissue, I therefore seized it with the Lion forceps and dissected it out, without loss of time. The acetabulum was healthy. Tied all bleeding points, venous, and arterial. The loss of blood was very small, less than 8 ounces. His pulse, which was over 150° when the operation was commenced, was very little weaker after it was over. Gave him stimulants and applied hot bottles.

I was assisted by my friend Professor Partridge, and my House Surgeon Baboo Money Lall Dutt.

24*th*, 3½ P. M.—The House Surgeon reports that there is no bleeding; that the pulse is 132°; tongue moist. Has taken milk and sago, beef tea and wine. Has no fever; respiration easy; says that he feels easier.

25*th*, 8 P. M.—He has had only one loose stool since the operation; no hemorrhage, pulse 106°, skin hot, but moist. Thermometer in axilla 106°. Tongue moist and clean, tending to a glazy condition. No hepatic tenderness; bronchial rāles on either side. Pleuritic friction in right upper chest. He is too weak to be examined on the back. He has had beef tea, and brandy 3 measures (6 ounces) since last report. Continue all as yesterday.

26*th*, 8 A. M.—Pulse 132 to 140°; skin cool and moist. Thermometer in axilla 102°. Tongue clean, tending to dryness in the centre. He has no pain. Bowels moved once yesterday. He has taken his food well, but rejected part of it. Is cheerful and in good spirits, smoking his hookah. The stump looks very well; from the outer angle a dark watery discharge; from the rest, healthy well formed pus. Washed out the cavity from the external angle, with a weak solution of chloride of zinc.

Let him have Brandy 6 ounces and food as yesterday.

27*th*, 8 A. M.—Yesterday evening, as on other evenings, the pulse quickened to 160°, and the skin got hotter. This morning it is not so hot. The tremor of the muscles is nearly gone. Pulse 132 to 142°. Spirits good. Bowels more regular. The discharge is becoming healthier.

28*th*, 8 A. M.—Pulse 140°. Thermometer in axilla 102°; skin moist; bronchial rāles still exist; slight moist rāle in upper right chest. Bowels opened once; stump looks well; discharge purulent, but from the acetabulum it is thin and dark colored; injected it with a weak solution of chloride of zinc gr. 1 to oz. 1. One ligature came away to-day. He is to have the same diet as yesterday, and two or three raw eggs beaten up with Brandy. He is reported to have been feverish again in the evening.

29*th*.—He had slight fever after 4 P. M. yesterday until early this morning. Thermometer rose to 103° in the axilla; bowels opened once. Took his food well before the fever came on. This morning he is cool; pulse 128°. Thermometer in axilla 101°. Tongue clean, moist, and smooth; stump looks well. Discharge improving. One ligature came away. Ordered quinine gr. 2, every 4th hour. The same diet, and brandy.

30*th*, 8 A. M.—Had fever again yesterday at 4 P. M. Thermometer 103°. Could not take his food. He is better this morning; skin cool and moist. Pulse 120 to 128°; chest sounds improving; tongue clean and moist; bowels moved once; stump looks healthy. Discharge improving and pretty free; one ligature came away to-day. The same diet as yesterday. I should have noticed that he has the thorax rubbed daily with a Turpentine liniment.

May 1*st*, 8 A. M.—Fever came on at 2 A. M. He was well all yesterday. There is now slight heat of skin. Thermometer in axilla 102°; pulse 124°; tongue slightly dry; stump looks very well; 4 more ligatures came away to-day. Removed also one or two of the wire sutures in the flaps. Discharge healthy and not profuse; moist rāles in upper right chest; respiration more natural on left side. Bowels moved twice naturally. Takes his quinine, brandy, and food as usual. He is very cheerful, and asks to be cured quickly.

2*nd*, 8 A. M.—He had no fever yesterday, but the pulse quickened to 140 in the evening. Axillary temperature 103°; tongue now clean and moist; pulse 128°; thermometer 100°; skin cool; bowels have acted three times, but not loose. Has taken his food well; several ligatures came away, only two left; all the sutures remaining removed. The flaps have nearly united; slight and healthy discharge chiefly from the glenoid cavity, rather flakey at times, as though the cartilage were disintegrating. The stump is now strapped with adhesive plaster. Continue the same diet.

3*rd*, 8 A. M.—He had slight fever yesterday afternoon, and 3 loose stools, for which the House Surgeon gave him some chalk mixture. Looks rather low this morning; pulse 128 to 130°; skin moist with sweat. Thermometer in axilla 98°; stump not looking quite so well; granulations pale. The discharge much as usual. The two last ligatures, on femoral artery, and vein came away. There has been a change in the weather; rain has fallen and the hot dry air (Thermometer 100 to 104°) has become damp. This is probably the cause of his not being quite so well. The chest sounds are better, rāles less sonorous; moist rāle in upper right chest less crepitant.

Continue the same diet and stimulants.

Stump has all but healed, except a sinus at each side, which appear to communicate with the acetabulum, and one where the two last ligatures came away.

4*th*, 8 A. M.—Had no fever yesterday. Thermometer in axilla now 100°; pulse 128°; bowels moved only once; stump looks well; discharge from sinuses getting thicker.

5*th*, 8 A. M.—No fever yesterday. Thermometer in axilla 100°; pulse 124°; stump looks well. Took his food well yesterday. Respiratory sounds almost normal.

6*th*, 8 A. M.—No fever yesterday; pulse quickened in the evening; slept well; has taken his food well; pulse 128; thermometer in axilla 98°; skin moist; bowels moved twice; chest sounds improving.

7*th*.—Pulse 120°. It is excitable, and rises when I visit him. I believe it falls lower when he is alone. Stump looks well; discharge diminishing. The femoral artery can be felt pulsating very distinctly in the anterior flap.

8*th*.—Pulse 120°, but it is reported to have been down to 104°; thermometer in axilla 99°. He is gradually improving; is gaining flesh and strength. Says he feels very well. Discharge from two sinuses healthy.

9*th*.—Pulse has been down to 108°. Thermometer in axilla 99°. Is doing well in all respects. Bowels slightly loose; discharge very healthy.

10*th*.—In all respects doing well; pulse 104 to 116°; had two evacuations; eats well, and is getting stronger daily.

11*th*.—Had two loose evacuations; the nurse says he ate too much yesterday. Put him on sago and beef tea to-day. He looks well. Thermometer in axilla 100°; pulse 120° at 8 A. M., but it has been lower; discharge healthy, contains what appear to be fragments of exfoliating cartilage.

12*th*.—Better to-day; discharge less. In all respects he is doing well; let him have more food to-day.

13*th*.—Doing well; pulse 96 to 120°. Thermometer in axilla 98°; bowels regular.

14*th*.—Doing well in all respects; pulse fluctuates between 96 and 120°; discharge gradually diminishing and very healthy.

15*th*.—Doing well. Thermometer in axilla 99° yesterday evening; pulse varies from 90 to 120°.

16*th*.—Doing well.

17*th*.—Ditto.

18*th*.—Wound nearly cicatrized, all but two small sinuses, the inner one discharges a small quantity of sero purulent, the outer, purulent matter.

19*th*.—Doing well.

20*th*.—Left off all dressing, except over the sinus, applied oxide of zinc powder over the cicatrix and a bandage as usual to support the stump.

21*st*.—Not quite so well. Thermometer in axilla 100°. Discharge thinner, but he says he feels well.

22*nd*.—Yesterday his skin was rather hot. Thermometer in axilla 102°; pulse slightly quickened in the evening. In dressing the stump the House Surgeon pressed out a small collection of sero purulent matter from the inner angle. In all respects though he is doing well. This morning, on pressure, some serum exuded from the inner sinus. There is also a small quantity of pus from the inter sinus.

23*rd*.—He is doing very well. The discharge is very slight, but still there is some from either angle. Pulse, temperature, state of bowels, and appetite, all good.

24*th*.—Doing well. In the centre of the cicatrix there are two small patches of greyish deposit of lymph.

26*th*.—Doing well. Discharge continues as before from the inner angle, it is a mere weeping of serous fluid; from the outer a few drops of healthy pus exude on pressure. The cicatrix looks somewhat œdematous and the grey patches are still there, as though some slight source of irritation lay beneath.

30*th*.—Slight discharge from the sinuses. He is gaining strength rapidly; has a good appetite. Takes his food well, and still has his two measures of brandy. He has also begun to take and retain Cod Liver Oil; he had attempted it once or twice before, but as it caused sickness it was discontinued. He is getting quite stout, is very cheerful, sits up in his bed, and with support moves about the ward.

31*st*.—Is very well this morning, and was supported about the ward as he took a little exercise. There is still a small quantity of pus to be pressed from the outer angle of the wound. The inner sinus has closed, and the two grey patches on the cicatrix are nearly gone. The cicatrix also is less œdematous, since a small quantity of pus was pressed out from under one of the grey patches.

June 4*th*.—The sinus is nearly closed, a few drops of healthy pus exude on pressure. He is in very good health; eats and sleeps well; is gaining flesh rapidly, and walks about the ward on crutches. He takes 4 ounces of Cod Liver Oil daily, and full diet.

June 10*th*.—He is in good health and spirits; is able to walk about the hospital on his crutches and is getting stouter and stronger daily.

There is still one sinus at the outer angle of the cicatrix, from which a small quantity of purulent discharge can be pressed. The rest of the stump is perfectly healed. He went out and had his photograph taken a few days ago.

June 11*th.*—He has been eating sweetmeats brought in by his friends, and has diarrhœa in consequence. Ordered Ol. Ricini ℥vi statim, chalk mixture after it. Put him on arrowroot and soup, and keep all his friends away. The discharge has somewhat increased, the cicatrix become œdematous, and the mouth of the sinus ulcerated to the size of a 4*d.* piece. He is in capital spirits, and very anxious to be about on his crutches.

June 12*th.*—He is better to-day; bowels natural; good appetite; sinus contracting; discharge less. Let him have more to eat again.

June 18*th.*—He is in excellent health; appetite good; bowels regular; sleep sound. The sinus is still discharging, but less than it has done. The cicatrix still somewhat œdematous, but contracting daily. He was present, and walked about the room on his crutches at the last meeting of the Medical Society.

June 22*nd.*—He is getting fatter and stronger daily; goes about the hostipal on his crutches. Still the sinus is open, discharging a few drops of pus daily.

June 29*th.*—For the last day or two the discharge has been slightly increased, and this morning I find that he has had slight fever yesterday, and that there is a collection of pus at the inner angle of the stump. This I opened and gave exit to about 2 ozs. of pus. He is pretty well in other respects. Passed a probe into the sinus, but can detect no extraneous substance.

June 30*th.*—No fever, no pain; discharge less.

July 1*st.*—Doing very well; scarcely any discharge; no fever, no pain. In excellent spirits and good appetite. He has gained much in flesh.

July 5*th.*—Sinus almost closed. He is in capital health, not the slightest pain or tenderness in the stump. The cicatrix contracted almost to a line. He is placed under the hospital Durzee, and is learning to make himself useful as a tailor.

July 8*th.*—A few drops of pus can still be squeezed out of the sinus, but there is no pain. He is in excellent health and getting fat.

He may fairly be returned as cured, for his health, spirits, and appetite are excellent; he goes to his work with the hospital Durzee daily.

The stump is free from pain or tenderness, the cicatrix is contracted to a narrow line, and the sinus, out of which a few drops of discharge can be squeezed in the morning, is not larger than an ordinary probe.

A few days after the last report on the 8th July, the sinus completely closed, and he is now, on the 31st July, perfectly cured. The sinus closed, the cicatrix firm and contracted, the stump well formed. He goes to work regularly as a tailor, and is in robust health. He uses crutches and gets over the ground rapidly; is getting fat, and is much grown in height as well as circumference since his accident.

He was admitted on 10th April 1864.
Thigh amputated on 12th April 1864.
Hip amputated on 24th April 1864.
Perfectly cured on 31st July 1864.
Just 100 days from the operation.