

C A S E  
OF  
DETACHED PIECE  
OF  
ARTICULAR CARTILAGE  
EXISTING AS A LOOSE SUBSTANCE IN THE  
KNEE-JOINT.

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THE following case, unfavorable in its result, I am wishful to put on record, on account of its important pathological bearing.

John W—, brewer, æt. 37, of robust frame, but a free liver, became an out-patient of the Leeds Infirmary, in June, 1855. He stated, that a year ago he accidentally let a cask, which he was lowering into a cellar, slip against the right knee. Severe pain in the joint followed, and he was unable to work for three weeks; after which time he followed his employment as usual for nearly twelve months, until a few days ago, when he became suddenly lame, and was unable to bear his weight upon the right leg. He then, for the first time, felt a flat substance moving about in the knee-joint.

For six weeks he attended the hospital as an out-patient, and was often seen by my colleagues, Mr. Smith and Mr. Samuel Hey. During this time he was frequently attacked by sudden pain and lameness, being unable to walk, until the substance was moved into some position where it ceased to annoy him. We could distinctly feel the flat substance, about the size of a shilling. It could be readily pushed upwards along the outer side of the joint, then under the extensor tendons, and down the inner side of the joint. It could, again, with equal ease, be made to take a retrograde course, and resume its old place. Very little pain was produced by these forced movements. At times, when the loose body was favorably placed, the patient could walk pretty well, but on slight changes in its position, extreme pain and lameness would result. Rest and bandaging were the chief means of treatment adopted, but without any beneficial result; for, although the substance could be readily placed in a favorable position, yet the bandaging, however carefully employed, failed to diminish materially its mobility.

At length, after urgent and repeated requests on the part of the patient, I agreed, with the consent of my colleagues, to remove the loose body; for which purpose he was admitted into the hospital.

August 1st, at noon, the patient was brought into the operation-room. The knee was but slightly enlarged, and did not show any synovial effusion. The substance being pushed to the outer side of the joint, so as to rest upon the outer condyle, a subcutaneous incision of the synovial membrane was made over it, in the hope that it might then be pushed into the areolar tissue; but this was found to be impracticable, on account of its large size and irregular border. The skin was then drawn forwards, and divided over the substance, after which it was easily removed. The wound was carefully closed by adhesive plaster and a compress of lint, and the joint covered with wet linen. The limb was kept perfectly motionless by a splint placed along the back of the thigh and leg.

The substance, on being examined, was found to be flattened, circular in form, and irregular or ragged at its border. One of its surfaces had the appearance of cartilage, and was smooth and slightly convex; the other was concave and rough, from a layer of bone.

The operation, unfortunately, was followed by inflammation of the joint and phlegmonous erysipelas of the thigh and buttock, which proved fatal on the sixth day.

The limb was examined after death, and considerable infiltration of the integuments of the thigh and buttock was found; but there was not any effusion observable in the tissues immediately surrounding the joint. On opening it, a small quantity of turbid synovia was found. At the under surface of the inner condyle the articular cartilage showed a circular depression, about the eighth of an inch in depth, having a rough surface of bone at its base. On comparing this breach in the articular cartilage with the substance which had been removed, they were found to correspond accurately with each other; and, on placing the detached substance in the cavity in the condyle, the continuity of the articular surface was perfectly restored. It is therefore evident that the loose body was a portion of the articular cartilage along with a thin layer of bony substance.

The explanation, which I venture to offer of this remarkable fact, is that a portion of the articular cartilage, and of the adjoining layer of bone, had been injured by the accident which the patient sustained when moving the cask; and that, by a slow process of exfoliation, extending through a period of about twelve months, the injured part was cast off and became loose in the joint, causing the pain and lameness which led him to seek for relief.

I am indebted to Mr. Sly, one of the resident assistants of the hospital for the notes of this case, and for his unremitting attention to it during its course.