

XXXVIII. *Account of a Woman enjoying the Use of her right Arm after the Head of the Os Humeri was cut away. By James Bent, Surgeon, at Newcastle. Communicated by Dr. Hunter.*

Redde, April 28, 1774. **M**R. WHITE, of Manchester, in an history of an operation performed upon the *humerus*, published in his treatise, entitled, *Surgical Cases, with Remarks*, and read before the Royal Society, Feb. 9, 1769; asserts, that he sawed off the upper head of that bone; and that his patient enjoyed the entire use of the joint. As the supposition of the head of the bone, with its ligaments, &c. being regenerated, must appear a little marvellous, and may prevent some from paying that attention to the operation, that it certainly merits, I flatter myself the following case will not be unacceptable to the Royal Society, as it proves, that the operation is not only practicable, but advisable; and, at the same time, points out the nature of Mr. WHITE's mistake. In plate VI. fig. 1. he has given a drawing of the bone he cut off; the bare inspection of which is sufficient to convince any one, that it could be only the body of the *humerus*

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that was carious, and separated from its *epiphyfis*; as the round head, with its cartilage, is wanting; and, I believe, there are few instances where the whole head of any bone is so entirely destroyed, in two or three weeks (a) by a *caries*, as that drawing represents. Hence it appears, that the joint, with its capsular ligament, remained in a sound state. We shall be farther confirmed in this opinion, if we attend to the description he has given of his mode of performing the operation, (*vide* p. 58.) where he says, "that he began his incisions at the orifice "which was situated just below the *processus acromion*." Now as the *processus acromion* reaches a little over the joint, his beginning his incision below that must, of course, be below the insertion of the capsular ligament.

MARY TURNER, a farmer's daughter, of IPSTONES, in this county, applied to me in October 1771, on account of an abscess in the joint of her right shoulder, with which she had been afflicted near three years. Upon examining it, I found three apertures; two near the middle and lower edge of the clavicle; and the third, near the insertion of the pectoral muscle into the *humerus*. By introducing two probes, from the upper and lower orifices, they easily met in the joint, the opening into which, through the ligament, seemed to be very small, and I could perceive the head of the *humerus* carious. As in this case, there seemed nothing to be proposed for her relief, but either to amputate the arm; or, by

(a) *Vide* p. 57. of his Treatise.

an opening, to cut away the head of the bone. I determined upon the latter; and accordingly began my incision from the upper orifice, near the clavicle, and continued it over the joint to the insertions of the pectoral muscle: but finding a single incision too small, to allow me to get at the head of the bone readily, I separated a part of the deltoid muscle from its insertion into the clavicle; and likewise a little of its insertion into the *humerus*, which gave me liberty to come at the joint, the capsular ligament of which, from frequent inflammation, was so thickened, and kept the head of the bone so close to its socket, that it was with difficulty I could introduce a *spatula* between them. This likewise, after opening the ligament, prevented the head of the bone from rising out of its socket, upon pressing the elbow backwards, as is common in performing the operation upon a dead body, when the joint is in a sound state; so that I was obliged to separate it quite round, before I was able to come at the bone with the saw. I then moved the elbow backwards, and brought the head of the bone over the pectoral muscle, as I found it impossible to saw it directly across, as Mr. WHITE directs, without leaving a considerable portion behind, that had been laid bare with the knife, and which, in all probability, must have exfoliated. By placing a card betwixt the edge of the deltoid muscle and the bone, and the saw within the incision, with its point into the joint, I cut off all that had been deprived of the *periosteum*, and had no exfoliation; nor had I occasion to take up one artery. As the tendon of the *biceps* muscle was cut through, I kept the fore-arm suspended.

My patient walked from my house to her own lodgings; her pain not very considerable, and she recovered, by the common treatment, without any bad symptom. She left this town in six weeks after the operation.

By using her arm too freely when she got home, the *cicatrix* was tore open about an inch and a half, which retarded its healing for three weeks longer; but from that time she has remained well. She has the perfect use of the fore arm; can raise her elbow about five or six inches from her side, put her arm back, lace her stays, put on her cap, sew, and do any business, as well as ever, that does not require the elbow to be more raised. The upper end of the *humerus* plays about an inch below the point of the *scapula*; and the *processus acromion* and *coracoides* appear on each side of the *cicatrix*, at nearly equal distance. I mention this only to point out more exactly the course of my incision.

Newcastle, Jan. 18, 1774.