

“muscular fibre-cell leads a sort of parasitical existence in relation to the rest of the body. . . . Every single bone-corpusele really possesses conditions of nutrition peculiar to itself.” Each element, as Sir J. Paget remarks, lives its appointed time and then dies, and is replaced after being cast off or absorbed.<sup>35</sup> I presume that no physiologist doubts that, for instance, each bone-corpusele of the finger differs from the corresponding corpusele in the corresponding joint of the toe; and there can hardly be a doubt that even those on the corresponding sides of the body differ, though almost identical in nature. This near approach to identity is curiously shown in many diseases in which the same exact points on the right and left sides of the body are similarly affected; thus Sir J. Paget<sup>36</sup> gives a drawing of a diseased pelvis, in which the bone has grown into a most complicated pattern, but “there is not one spot or line on one side which is not represented, as exactly as it would be in a mirror, on the other.”

Many facts support this view of the independent life of each minute element of the body. Virchow insists that a single bone-corpusele or a single cell in the skin may become diseased. The spur of a cock, after being inserted into the ear of an ox, lived for eight years, and acquired a weight of 396 grammes (nearly fourteen ounces), and the astonishing length of twenty-four centimetres, or about nine inches; so that the head of the ox appeared to bear three horns.<sup>37</sup> The tail of a pig has been grafted into the middle of its back, and reacquired sensibility. Dr. Ollier<sup>38</sup> inserted a piece of periosteum from the bone of a young dog under the skin of a rabbit, and true bone was developed. A multitude of similar facts could be given. The frequent presence of hairs and of perfectly developed teeth, even teeth of the second dentition, in ovarian tumours,<sup>39</sup> are facts leading to the same conclusion.

<sup>35</sup> Paget, ‘Surgical Pathology,’ vol. i., 1853, pp. 12–14.

<sup>36</sup> Ibid., p. 19.

<sup>37</sup> See Prof. Mantegazza’s interesting work, ‘Degli innesti Animali,’ &c., Milano, 1865, p. 51, tab. 3.

<sup>38</sup> ‘De la Production Artificielle

des Os,’ p. 8.

<sup>39</sup> Isidore Geoffroy Saint-Hilaire, ‘Hist. des Anomalies,’ tom. ii. pp. 549, 560, 562; Virchow, *ibid.*, p. 484. Lawson Tait, ‘The Pathology of Diseases of the Ovaries,’ 1874, pp. 61, 62.