

ON EARLY LIVE BIRTH, WITH CASE.

DR. KEILLER exhibited to the Edinburgh Obstetrical Society, a premature foetus which was born alive in the fourth month, and made some remarks on the *medico-legal* relations and importance of such a case. The following are the particulars of the case as noted at the time of its occurrence :—

On the 17th June Dr. Keiller was called to Mrs. R., who was about to abort. She had miscarried about a year previously (20th July), when seven months pregnant, and now considered herself only in the fourth month, having last menstruated on the 8th February, and quickened about a week ago (8th June). The pains were evidently expulsive, and on examination the distended membranes were felt protruding into the vagina. Dr. K. shortly afterwards ruptured them, when the liquor amnii was forcibly and fully expelled, a foot immediately presenting itself by which the extraction of the foetus was speedily accomplished. The heart and vessels of the cord were beating vigorously, which induced Dr.

K. to allow the foetal circulation through the still attached placenta to continue for some time in order to observe the reflex movements of the limbs, face and respiratory muscles which thereafter took place. At first these muscular reflex contractions were very marked. On touching the feet and hands, the limbs were immediately drawn up and moved about. On blowing on the face the lower part of it was tremulously moved, and the mouth at each time opened; and three or four times an attempt to respire or gasp, accompanied by an apparently respiratory movement of the chest or thoracic convulsion, took place. The pulsations of the carotid arteries were also at first very distinctly observed. The umbilical pulsations gradually diminished in force and frequency, and when reduced to about 90 beats in the minute Dr. K. cut the cord and allowed about a drachm of blood to ooze from its foetal extremity. The heart's action immediately became quicker, and one or two thoracic convulsions afterwards followed. The mouth gaped repeatedly on blowing air on the features, the limbs gradually lost their reflex actions, and the heart's action, as seen against the thin walls of the chest, became more and more feeble; subsequently a few seconds elapsed between every observed pulsation, but more or less distinct movements occurred for nearly an hour from the time the foetus was first expelled. On being weighed the foetus was found to be exactly $9\frac{1}{2}$ oz., in length it measured 8 inches, the placenta with attached cord weighing about 6 oz. The eyelids were adherent, the nose and ears closed, the mouth, however, being open; the membrana pupillaris was entire; on opening the chest the situation and appearance of the lungs and other organs were characteristic of its apparent age. The lungs in color and volume resembled those of an early foetus, and with the exception of one or two ecchymosed spots no color or other evidence of developed air-cells were noticed, all the appearances indicating that no air whatever had ever reached the tissue of the lungs. The brain was afterwards minutely examined, and also found to be characteristic of the apparent age, as were also the other foetal organs.

Dr. Keiller referred to the importance of such cases of early live birth, in regard to civil jurisprudence, but more especially to the questions, *Possessio Fratris, Tenancy by Courtesy, &c.*, to which the case he had now reported was in several respects related. It was frequently a matter of considerable importance to determine even the momentary existence of children at birth, and therefore the subject of *live birth*, and the evidence by which its occurrence is held to be substantiated, occasionally become of extreme consequence in a legal point of view, more especially in cases of contested lawsuits relative to the inheritance of, or succession to, property. Dr. Keiller directed the attention of the Society to the decisions that had from time to time been given respecting *what constituted live birth*, and referred to the more recent cases in civil jurisprudence in which the question of live birth was held to be established without any evidence of what was formerly demanded, *respiration or crying*. The mere muscular movements of the limbs, or the features, independent of any signs of respiration (as alone happened in the preceding case) having been ruled as sufficient evidence of a child being

born alive, is therefore now held to be ample enough proof of what is termed in such investigations "live birth."—*Edinburgh Monthly Journal of Medical Science.*