of the sexual variations gained from a study of the dried pelves mentioned above.

Derry[8] in 1909 suggested that a wide sacrosciatic notch was of greater importance for easy labor than a wide sub-pubic angle. From our x-ray examination of the so-called funnel type this observation can be supported. Spontaneous delivery has occurred in cases of rather marked degrees of narrowing of the sub-pubic angle, but invariably in these cases the sacrosciatic notch was wide, associated with a long terminal ilium. Williams[12] has stressed the importance of the posterior sagittal diameter. This is, of course, an accurate index of the pelvic outlet, but the basic anatomical factor behind a wide or a narrow posterior sagittal diameter is high up in the pelvis, in the form and size of the sacrosciatic notch. The first obstetrical difficulty is then encountered in mid-pelvis. The exception to this rule occurs in an abnormal forward curvature of the lower end of the sacrum such as is met with in rickets. We have noted in several funnel pelves delivered by Caesarean section a wide female type of notch. In view of the possibility of compensation we feel that in the future such cases might be allowed trial labor. On the other hand, with a combination of two male stigmata, such as a narrow sacrosciatic notch and a narrow sub-pubic angle, difficulty at time of labor can be expected. In this type of case elective Caesarean section can be sanely advised, as a reasonable method of delivery. The question of compensation does not appear to be entirely limited to the variations of the sacrosciatic notch and sub-pubic angles. It resolves itself into the appreciation of the fact that the pelvis is a very variable portion of the skeleton, and although in one region it may contain a stigma tending to limit its capacity, in others it is prone to attempt to compensate. Derry[8] has shown that in the male the apex of the sacrosciatic notch is nearer to the auricular surface than in the female. Straus[11] admits this observation but considers it is only true on the average. He states, "Sometimes the notch is 'typically' female when the lower ilium is short (male) and in other instances the notch may be quite male in type when the lower ilium is long." In our x-ray series we have noted these points. Although the shape of the inlet is modified by the shape of the sacrosciatic notch and terminal ilium, usually the anterior portion of the pelvis compensates favorably. In one case the forward movement of the auricular surface toward the apex of the notch gave a decided heart-shaped appearance to the inlet with inward curvature of the ilio-pectineal line and projection forward of the sacral promontory. This resulted in the longest transverse diameter of the inlet being situated nearer the sacral promontory than is commonly found in the typical female pelvis.

[12] J. W. Williams, "Obstetrics." Sixth Edition, 1930.

The Deep Pelvis

From measurements based on 35 male and 35 female pelves we find a significant sexual difference in the depth of the true pelvis. The pelvic depth was taken as being the greatest perpendicular distance from the tuberosity of the ischium to the ilio-pectineal line. In males this averaged 97.6 mm, in females 86.8 mm. Thomson[7] cites Verneau's measurements: for males 107 mm; for females 93 mm. In our x-ray series we find rather frequently women with thick masculine type of bones and increased depth to the true pelvis. An increase of 1 cm in the depth of the pelvis presupposes increased length of the pubic rami. In such a case the outlet or intertuberous diameter may be proportionately increased, the inherent size of the sub-pubic angle not necessarily being affected. In the event of an associated narrowing of the sub-pubic angle with increased length of the pubic rami, the outlet may present normal dimensions. This normal intertuberous measurement may thus obscure a dangerous type of funnel pelvis.

Conclusions

We feel that the size and shape of the sacrosciatic notch give an index of pelvic capacity and that variations therein may be indicative of male stigmata. X-ray examination of the pelvis gives an appreciation of these variations and also additional information concerning the form of the sub-pubic angle and a general conception of the bony architecture which may be of prognostic importance.

Detailed results of this investigation will be published later.

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