EXPERIENCE AND REASON—Briefly Recorded

"In Medicine one must pay attention not to plausible theorizing but to experience and reason together. . . . I agree that theorizing is to be approved, provided that it is based on facts, and systematically makes its deductions from what is observed. . . . But conclusions drawn from unaided reason can hardly be serviceable; only those drawn from observed fact." Hippocrates: *Precepts. (Short communications of factual material are published here. Comments and criticisms appear as Letters to the Editor.)*

Hymens in Newborn Female Infants

Few physicians are comfortable testifying in courts of law. Fewer still are comfortable when the subject at hand involves sexual abuse and when there is often a paucity of physical or laboratory findings. Yet, with increasing public awareness, the number of cases of child sexual abuse involving the criminal justice system is dramatically increasing, with a concomitant need for expert witness testimony.

When sexual abuse is alledged, a physician may be asked to assess a child's genitalia and anus for signs of past sexual activity. In girls, this entails looking for changes in the hymen, such as tears or scarring, estimating the diameter of the introitus, and looking for dilation of the hymenal ring.[1] The physician may be asked in court to express an opinion on whether or not the child has had intercourse or other forms of genital penetration on the basis of the physical examination findings.

When hymenal tissue is not identified, the classic question invariably emerges from the defense counsel: "But doctor, aren't some girls born without hymens?" The physician's credibility may suffer with the (truthful) admission that he or she does not know. Although descriptions of hymenal anatomy in newborns exist,[2,3] we were unable to locate data that could either support or refute this proposition. Hence, this study was undertaken.

METHODS

Female infants born at two hospitals with active maternity services were examined prior to discharge to determine whether hymenal tissue could be identified. The examiners included a physician, a pediatric nurse practitioner, and a perinatal nurse clinician. The examinations were done on normal girls who had been admitted to the nursery for regular newborn care. Prior to the beginning of the study, the examiners examined babies together to demonstrate that there was agreement on what constituted hymenal tissue in infants and to review the definition of normal variations in the appearance of that tissue. After examining the babies, the examiners recorded the presence of the hymen as part of the routine physical examination data written in the infant's medical record.

The two hospitals in which the examinations were done serve different populations. One hospital was a suburban health maintenance organization hospital, in which 645 female infants were examined during a 15-month period. The racial distribution was 639 white, three Asian, and three black infants. The second hospital was a university hospital in which 486 infants were examined. The racial distribution of the babies born at this hospital was 70% white, 15% Asian, and 17% black.

RESULTS

A total of 1,131 infant examinations were recorded. In all 1,131 cases, the female infants were noted to have hymens. No major anomalies of the urogenital tract were diagnosed. Between 3% and 4% of the infants had normal anatomic hymen variants such as tags and transverse hymenal bands.

DISCUSSION

The 95% confidence interval for the data presented was calculated; the highest possible fre-

Reprint requests to (C.J.) Harborview Medical Center, 325 Ninth Ave, Room 9C-26, ZA-07, Seattle, WA 98104.
PEDIATRICS (ISSN 0031 4005).

quency of congenital absence of the hymen is 0.00265, or less than 0.3%. The lowest estimation of the frequency would be essentially zero. Thus, a female infant being born without a hymen is an unlikely occurrence, if it occurs at all. We conclude that, in the absence of major genitourinary anomalies, one could expect hymenal tissue to be present in young female children. If hymenal tissue cannot be identified, traumatic disruption should be considered as a possible cause.

CAROLE JENNY, MD
MARY L. D. KUHNS, RN, PNC
FUKIKO ARAKAWA, CPNP, CRN
Department of Pediatrics and the Sexual Assault Center
University of Washington
Harborview Medical Center
University Hospital
Eastside Group Health Hospital
Seattle

REFERENCES

1. Cantwel HB: Vaginal inspection as it relates to child sexual abuse in girls under thirteen. *Child Abuse Negl* 1983;7:171–176
2. Mor N, Merlob P, Reisner SH: Tags and bands of the female external genitalia in the newborn infant. *Clin Pediatr* 1983;22:122–124
3. Borglin NE, Selander P: Hymenal polyps in newborn infants. *Acta Pediatr* 1962;51(suppl):28–31

A TURN OF THE WHEEL

Professor Shorter identifies three evolutionary phases of doctor-patient relationships—*traditional*, medicine having neither diagnostic acumen nor therapeutic power; *modern*, from 1850 to 1950, with diagnosis refined, but therapy limited; and *post-modern*, with powerful, precise drug therapies. Patients were dismissive in the traditional period; respectful, even idolatrous, in the modern period; and in the post-modern period once again cynical and sceptical, consulting both lawyers and alternative practitioners.

Submitted by Student

From Shorter E: *The Troubled History of Doctors and Patients*. Harmondsworth, Viking, Penguin Books, 1986.