Antenatal diagnosis, prevalence, and outcome of congenital anomalies of the kidney and urinary tract in Saudi Arabia

Sir,

I have two comments on the interesting study by Bondagji.[1]

First, Bondagji[1] in his study reported that the antenatal diagnosis of all congenital anomalies of the kidney and urinary tract (CAKUT) cases was confirmed postnatally in 90.1% of cases. Furthermore, Bondagji[1] mentioned that the perinatal outcome of the fetuses with CAKUT involved perinatal death in 21.9% cases. It is well-known that the close co-operation between ultrasonographers and perinatal pathologists is mutually beneficial. Ultrasonography is an essential method for the diagnosis of the majority of fetal malformations, but post-mortem examinations can yield an indispensable quality control as well as additional information to ultrasound examinations.[2] I wonder whether post-mortem examination was done for the succumbed fetuses in the studied cohort. I presume that absence of postmortem examination together with the notion that too little is known about the physiological development of the fetal urinary tract in ultrasonography and hence, inability to safely differentiate between physiological and pathological development[3] might alter the concordance frequency of antennal and postnatal diagnosis of CAKUT (90.1%) addressed by Bondagji.[1]

Second, the reported prevalence of CAKUT in the studied population (3.26/1000 births) and the perinatal mortality rate among fetuses with CAKUT (310/1000) are alarmingly high. Strict actions are, therefore, needed to prevent further escalation of the aforementioned outcomes. I presume that the following two points could be of help to achieve that goal. (1) It is well-known that consanguineous couples have a higher risk of having children with congenital malformations than non-related couples. The practice of consanguineous marriage has been the culturally preferred form of marriage in Kingdome of Saudi Arabia (KSA).[4] This is further supported by Bondagji's study[1] where 40.4% of the affected fetuses were the products of consanguineous marriages, while 59.6% were the products of non-consanguineous marriages. The continuing popularity of consanguineous marriage in KSA and their unwanted aftermaths ought to be confronted by suitable educational programs. (2) It seems justifiable to implement a national combined prenatal and postnatal ultrasound screening examination in KSA as that has been proved to be effective in early CAKUT diagnosis.[5] This would be beneficial in initiating further invasive diagnostic procedures and planning postnatal medical and surgical intervention. Furthermore, it helps to consider the option of termination of pregnancy within the cultural, legal, and religious frameworks, particularly for lethal CAKUT.

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