normal thyroid function while the other 4 developed overt hypothyroidism. It is to be noted that all the 8 patients in this study were on thyroxine therapy. Thus, the need for regular monitoring of the thyroid function tests can hardly be overemphasized, as transition from one state to another is a recognized feature of the disease.

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From the Department of School Health (Mabrouk), Department of Psychiatry (Eapen), United Arab Emirates University, Al Ain, United Arab Emirates. Address correspondence and reprint requests to Dr. Valsamma Eapen, Associate Professor in Child Psychiatry, Faculty of Medicine & Health Sciences, UAE University, PO Box 17666, Al Ain, United Arab Emirates. Tel. +971 (3) 7672000 Fax. +971 (3) 7672995. E-mail: veapen@uaeu.ac.ae

References

1. Cervera R. The epidemiology and significance of autoimmune diseases in health care. ***Scand J Clin Lab Invest*** 2001; 235 Suppl: 27-30.
2. Degner D, Meller J, Bleich S, Schlautmann V, Ruther E. Affective disorders associated with autoimmune thyroiditis. ***J Neuropsychiatry Clin Neurosci*** 2001; 13: 532-533.
3. Milakovic M, Berg G, Eggertsen R, Lindstedt G, Nystrom E. Screening for thyroid disease of 15-17 year-old schoolchildren in an area with normal iodine intake. ***J Intern Med*** 2001; 250: 208-212.
4. Jaruratanasirikul S, Leethanaporn K, Khuntigij P, Sriplung H. The clinical course of Hashimoto's thyroiditis in children and adolescents: a 6 years longitudinal follow-up. ***J Pediatr Endocrinol Metab*** 2001; 14: 177-184.

The role of external cephalic version on the presentation at delivery

Saad E. Dafallah, *MBBS, MGOK,*
Sayed M. Elhag, *MBBS, MRCOG*

A randomized control study was conducted in Wad Medani Teaching Hospital (WTH) in Sudan from January 1995 to December 2001. The study was designed to include 620 healthy women with uncomplicated pregnancy and having breech presentation between 36-38 weeks gestation. These patients were all attending the antenatal care clinic in WTH. The diagnosis of breech presentation was made clinically and was confirmed by ultrasound. This was also utilized to exclude from the study group, findings such as congenital malformation, oligohydramnios and placenta previa, confirmation of the fetal spine position, location and type of the breech, gestational age and the estimated fetal weight. All patients with uterine abnormality, previous cesarean section, hypertensive disorders with pregnancy, anti partum hemorrhage and intrauterine growth retardation was excluded from the study group.

Six hundred and twenty patients were then divided into 2 groups. The study group comprised of 310 patients and the control group, 310 patients. External cephalic version was attempted in all the study group once, twice or 3 times. The control group was left untreated. All women in the study group gave their informed consent before being randomly allocated to the study group or the control group. Due to the more frequent occurrence of spontaneous version on parous women than in the nulliparous women, nullipara and multipara were randomized separately in the 2 groups to obtain an equal distribution in both groups.

The study group includes 135 nullipara and 175 multipara. External cephalic version is performed throughout the study by the same physician using the classical forward roll technique with the patient relaxed and in slight Trendelenburg position. No tocolytic, analgesic or anesthetic agents are used. The procedure never took more than 5 minutes and was discontinued if not easily accomplished or if the patient indicated any discomfort. When the procedure failed or when reversion to breech occurred, the maneuver is repeated up to 3 times at subsequent antenatal visit, but never more than twice in the same week. The fetal heart rate was assessed by Binard fetal stescope before and 5 minutes after the procedure. The control group on the other hand, includes 125 nullipara and 185 multipara with breech presentation. No external cephalic version is attempted in this group. All patients with breech presentation at delivery were assessed by the attending obstetrician with regard to the mode of delivery. All neonates were assessed by Apgar score at 1, 5, 10 minutes and were weighed.

The significance or differences between relative values or frequencies was assessed by the mean X^2 analysis or by Fisher test. *P* value <0.05 was considered significant and 95% confidence interval (CI) were calculated where appropriate.

The mean age and the duration of gestation of all patients upon entering the study showed no significant differences between the 2 groups, with the exception that the parous women in the control group were older than those in the study group. The average gestational age at the time of the first attempt of external cephalic version was 36.45 weeks in the study group. Seven hundred and fifty attempts of external cephalic version were undertaken in the 310 patients. All attempts were 196 (26.1%) successful. In nullipara patients, successful attempts were 91/415 (21.9%) compared with 105/335 (31.3%) in multipara ($p>0.05$). Spontaneous reversion to breech after successful attempt of external cephalic version occurred in 3 nulliparous women and only 2 in multiparous patients. Definitive success was obtained before

Table 1 - Presentation and mode of delivery.

The presentation and mode of delivery	Study group		Control group	
	Nullipara (n=135)	Multipara (n=175)	Nullipara (n=125)	Multipara (n=185)
Cephalic presentation	59	116	35	65
Successful version	72	97	-	-
Spontaneous version	3	25	35	65
Vaginal delivery	48	95	31	65
Cesarean section	24	2	4	2
Breech presentation	76	59	109	110
Vaginal delivery	62	55	80	100
Cesarean section	14	4	29	10

completion of 38 weeks gestation in all patients (54.5%). In nullipara patients, the definitive success was 72/135 (53.3%) and 97/175 (55.4%) in the multipara. (p<0.05). This was obtained before 38 weeks of gestation in 88% of patients (95% CI) and with a maximum of 3 attempts in all patients. **Table 1** shows the presentation and the mode of delivery. Cephalic presentation was found in 175/310 (65.4%) in the study group compared with 100/310 (32.3%) in the control group (p<0.101). The proportion of parous women with cephalic presentation was significantly higher than that of nulliparous women in both group (p<0.05). In the study group, spontaneous version to definitive cephalic presentation occurred in 3 of the nulliparous women and in 25 of the multiparous with failed attempts of external cephalic version. In the control group, spontaneous and definitive version occurred in 100/310 (32.3%), significantly more frequently in parous women (20.9%) than in nulliparous women (11.3%) (p< 0.05).

The rate of cesarean section was 44/310 (14.2%) and 45/310 (14.5%) in the study group and the control group (p>0.05). The rate of cesarean section in patients with breech presentation was not significantly different where in the study group 13.3% and the control group with 17%. Infants born as breech presentation in the multiparous women had lower birth weight and were born earlier than infants in cephalic presentation in the same group (p<0.05). Two neonates in the control group died few hours after delivery due to pneumonia resulting most likely from intrauterine infection as a sequel of early rupture of membranes.

External cephalic version was successful in 26.1% of all attempts. This success rate is lower than the 45% found by Devendra.[1] This could be explained by the fact that in our study the procedure was immediately discontinued if it was not easily accomplished. Our study attempts were repeated, cephalic presentation was eventually obtained in 54.5% of the patients.

More important than the rate of definitive success is the net gain from the procedure such as the rate of successful external version corrected for the expected rate of spontaneous version to a cephalic presentation. We found 32.3% rate of spontaneous version in the control group indicating a net gain from the procedure of 22.2%. This results is comparable with a net gain of 23.3% in the study of Chan et al.[2]

The procedure was not associated with serious fetal and maternal complications. This conclusion is also found by Giusti et al.[3]

Our study showed clearly that external cephalic version performed at 36–38 weeks gestation reduces the rate of breech presentation at delivery. Approximately 3-4% of all neonates presented as breech at term. The perinatal morbidity and morbidity is 3-5 times higher than those associated with cephalic presentation.[4] These figures have become so low in modern obstetrics, supported by the fact that we have only 2 perinatal deaths in our study. The impact of external cephalic version on the rate of cesarean section depends mainly on the strategy of management of breech presentation. In our study the rate of cesarean section in women with breech presentation is 57/354 (16.1%). This results is low compared with 22.8% found by Siddiqui et al.[5]

The attitude of pregnant women towards external cephalic version is an important factor leading to increase the rate of success. The external cephalic version is affected by uterine tone, the position of the fetal spine, the type of breech, gestational age and the estimated weight of the fetus. This could explain the fact that the rate of success is more in the multipara than the nullipara in our study.

The procedure of external cephalic version should be introduced in the routine management of breech presentation between 36–38 weeks gestation. The procedure should be performed by obstetricians with limited experience.

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From the Department of Obstetrics and Gynecology, Wad Medani, Sudan. Address correspondence and reprint requests to Dr. Saad E. Dafallah, Faculty of Medicine, University of Gezira, PO Box 20, Wad Medani, Sudan. Fax. +249 (5) 1143415.

References

1. Devendra K. Introducing routine external cephalic version for the management of the malpresenting foetus near term. ***Med J Malaysia*** 2002; 57: 454-459.

2. Chan LY, Leung TY, Fok WY, Chan LW, Lau TK. High incidence of obstetric interventions after successful external cephalic version. ***BJOG*** 2002; 109: 627–631.
3. Giusti M, Bertolotti GC, Nappi RE, Fignon A, Zara C. External cephalic version as a possible treatment of breech presentation. ***Minerva Ginecol*** 2000; 52: 221–227.
4. Krebs L, Langhoff Roos J, Weber T. Breech at term-mode of delivery. ***Act obstet Gynecol Scand*** 1995;74: 702-706.
5. Siddiqui D, Stiller RJ, Collins J, Laifer SA,. Pregnancy outcome after successful external cephalic version. ***Am J Obstet Gynecol*** 1999; 181: 1092–1095.

Survey of satisfaction of patients attending pediatric orthopedic clinics at King Fahd Hospital of the University, Al-khobar

Ibrahim Al-Habdan, *FRCSI, FICS.*

Patients who come to hospitals to get care deserve proper and adequate attention. The relationship between the provider (hospital) and the patient is the foundation for success. Patient satisfaction is always viewed as an outcome of delivery of health care and works as an indicator of the quality of mandatory care. Patients have certain expectations, some are reasonable and others beyond comprehension. Patient satisfaction is an important way to assess quality of care delivered. Surveys are now standardized to detect deficiencies and to make adequate corrections to prevent them. As early as 1995, the 6th Saudi development plan gave priority to the improvement in the delivery of health care and health of its citizens which gave an impetus for several studies to be conducted for satisfaction of inpatients,[1] emergency rooms[2] and primary health care centers.[3] A review of literature yielded only a few reports on patient satisfaction, of the outpatients clinics within and outside the Kingdom of Saudi Arabia. This prospective study was conducted to assess whether our patients are satisfied with the care being given in our orthopedic clinics and to identify areas where existing dysfunctions are present so that decisions for correction could be made.

There are 2 weekly pediatric orthopedic clinics (POC) established in 1997, which probably are the only pediatric orthopedic clinics in the Eastern Province of Saudi Arabia. All pediatric orthopedic patients seen in the emergency room, are directly referred to in POC.

An explanation was given to the patient's parents regarding the objectives of the questionnaire. It was emphasized that the answers to the questionnaire will not affect in any way their ward management and that the exercise was only to improve the quality of care given in the clinic facility. Patients were randomly picked for the survey and the satisfaction criteria were assessed on the scale of 1-4 (poor, fair, good and excellent). Overall satisfaction was assessed, however, on a 2-point basis either satisfied or not satisfied. The questionnaire included the age of patient, gender, level of education of parents. It also included in registration, the department, nurses, physicians in the explanation of disease and period of appointment. The data was entered in a database and analyzed using statistical package for social sciences (SPSS) and the level of significance was taken at $p<.05$.

Parents of 200 pediatric orthopedic patients were randomly interviewed. One hundred and twenty-two were boys and 88 girls. The average age of the patients was 68.4 months (8 days – 156 months SD ± 45.02). Saudi nationals constituted 72% of the patients and the rest were non-Saudis (28%). The 8 parameters were studied on a 4 point scale. All parents of the children appeared to be totally satisfied but when the satisfaction was assessed on 4-point satisfaction it was 87.5% and on 2-point (satisfied and not satisfied), it further dropped to 68.5%. With regard to physicians' explanations of the disease process 58% were satisfied on 2-point scale. In comparison between those who were educated, the higher the education the more satisfied the parents were ($p<.001$). Out of 200 patient, 124 (62%) were with multiple visits and 76 (38%) first visit, 146 (73%) were admitted and operated. On 2 parameters the interviewed were totally dissatisfied. Their reasons were the delay in getting the appointment and the time spent at the hospital before the patient was seen in the clinic.

The present survey was for satisfaction of pediatric orthopedic clinics on a 4-point scale which was reported to produce a better response and predicts patients behavioral intentions. Patient satisfaction in Gulf countries assessed earlier was reported in the range of 60-80%.[2,4] In comparison to the reported studies, the overall satisfaction in this survey was 89% which is higher. This could have been due to the nature of the patients, and majority of the patients have been inpatients in the specialty. We believe that there might have been response bias leading to over estimation of the level of satisfaction as the parents were interviewed rather than patients, but who else can answer the satisfaction more correctly than primary caregivers?

Patients were unsatisfied on various reasons particularly delay in seeing the patient from the time they arrive to the hospital and in the follow up appointments. Surprisingly, majority of the parents indicated that they were satisfied with the treatment given to their children but they lacked information on the disease of their children. Frank-Soltysiak et al[5] reported similar findings indicating that patients had insufficient information of the disease and the