

OASIS: A clinical re-audit in a tertiary care center

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Background :

Obstetric anal sphincter injury (OASI) involves 3rd and 4th degree perineal tear that involve disruption of the anal sphincter and rectal mucosa respectively, which can have long term morbidity.

Methods

Data was collected retrospectively over a period of two years from July 2021 to June 2023, using a proforma developed at University hospital, Limerick. Proforma was developed to capture age, parity, BMI, induction of labour, duration of second stage, episiotomy, type of delivery, operator of delivery, type of tear, birth weight, EBL, type and grade of operator, technique, suture type, antibiotic, laxative use, physiotherapy referral. and debriefing by primary operator. Postnatal evaluation includes urinary aand bowel control, postnatal clinic review and if dyspareunia seen. Data was analysed using excel sheets.

Objective :

To evaluate the quality of care in both the initial management of obstetric anal sphincter injury and subsequent follow up postnatally in a tertiary maternity hospital.

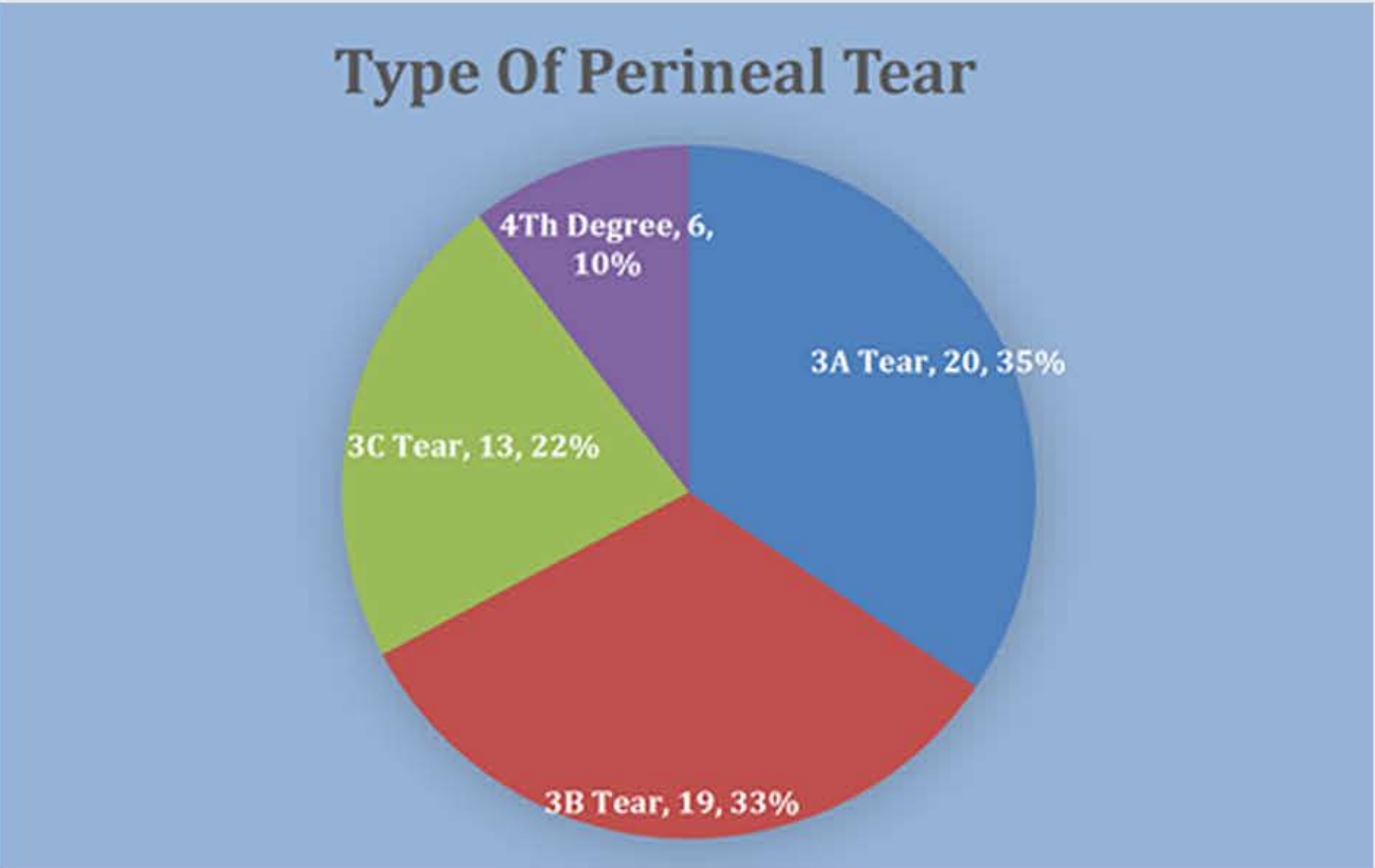
Standards :

- 1.Rectal mucosa can be repaired using interrupted or continous technique. When torn internal anal sphincter is identified, it is recommended to repair this separately with interrupted or mattress sutures while full thickness external anal sphincter can be repaired by end to end or overlapping and partial thickness external anal sphincter with end to end technique.
2. 3-0 polyglactin is preferred for rectal mucosa repair and 3-0 PDS for IAS/EAS muscle repair.
3. The use of broad spectrum antibiotics to reduce the risk of infection, post natal laxatives and physiotherapy review before discharge and plan for review at 6-12 weeks postnatal is recommended.

Results

During the period of two years from July 2021 to June 2023, there were total of 58 cases of OASI ie 3rd and 4th degree perineal tears. In the study most of the cases 37 (63.7%) were in age group of 30-40 years, 19 (32.7%) were in age group of 21-29 years, one case each of less than 20 years and more than 40 years. 24 cases (41.3%) were primiparous and 34 (58.6%) cases were multiparous. Out of total cases, 52 (89.6%) were of normal BMI. 50% of cases had induction of labour and rest 50% had spontaneous onset of labour. Results showed 16 (28%) cases had prolonged second stage of labour and majority of the cases, 36 (63.1%) were delivered by midwife. Out of total 58 cases, 38 (65.5%) had SVD, 10 (17.2%) combine instrumental delivery, 7 (12%) had kiwi and 3 (5.1%) cases had forceps delivery. Only 15 cases had mediolateral episiotomy performed. In the study, 20 cases (34.4%) had 3A tear, 19 cases (32.7%) had 3B tear, 13 cases (22.4%) had 3C tear and 6 cases (10.3%) had 4th degree tear. Data showed 14 cases (24.1%) had birth weight of more than 4kg, 8 cases (13.7%) had blood loss of more than 1 litre and majority of the cases 53 (91.3%) had repair in theatre.

Most of the cases ie 43 (74.1%) were repaired by Registrar and rest ie 15 cases (25.8%) by consultant. In 6 cases of 4th degree tear rectal mucosa was repaired using continous technique with 3-0 polyglactin. Out of 52 cases of 3rd degree tear 41 had end to end technique for repair and 11 overlap method. 51 cases used PDS and 7 cases had used vicryl as suture material for repair. It was also noted that 51 cases (87.9%) were debriefed by the primary operator. All the cases had antibiotic and laxative usage and also physiotherapy referral. In the post natal evaluation it was seen that 7 cases (12%) had urinary incontinence, 2 cases had bowel incontinence, 3 cases had flatus incontinence and in 3 cases there was no documentation about bowel control. It was also seen 12 cases didn't had any post natal clinical review.



Variable	Parameters	No of Cases
Age	< 20 Yrs	1
	21 - 29 Yrs	19
	30 - 40 Yrs	37
	> 40 Yrs	1
Parity	0	24
	1	23
	2	11
BMI	< 30	52
	30 - 40	6
	> 40	0
IOL	Yes	29
	No	29
MOD	SVD	38
	KIWI	7
	Forceps	3
	Combine	10
Birth Weight	> 4 KG	14
	3.5-4KG	21
	3 - 3.5KG	19
	< 3 KG	4
EBL	< 500 ml	38
	500 -1000 ml	12
	> 1000 ml	8

Conclusion

In this study primiparity, BMI, induction of labour, use of episiotomy, prolonged second stage, birth weight of more than 4kg and instrumental deliveries were not identified as risk factors for OASI. In majority of the cases compliance with standard practice (suture, technique, antibiotic and laxative use and physiotherapy referral) was noticed. In post natal review proper documentation was not seen in few cases and follow up plan was not done in 12 cases.

Recommendation

To ensure all the health care staff are familiar with guideline of Obstetric sphincter injury Management.

To ensure proper documentation about post natal evaluation and plan for clinic review (lavender clinic). It is also recommended to have debriefing process by primary operator, including discussion about prognosis and future pregnancies.