Audit of Maternal and Fetal Outcome of Cervical Cerclage in Pregnancy
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Introduction
Cervical incompetence: defined as painless cervical dilatation after the first trimester with prolapse of the membranes into the vagina. It is difficult to diagnose objectively, and reported incidence varies from 3 - 18 per 1000 live birth. Interventions to prevent progression include non-surgical (modified activity, bed rest and pessaries) and surgical approaches, using cervical cerclage. St Michaels Hospital has local guidelines to ensure appropriate utilization of this procedure due to associated risks including PROM, chorioamnionitis and puerperal pyrexia. This audit looks at maternal & fetal outcomes and compliance with guidelines in three groups – elective, urgent/USS-indicated and emergency cerclage.

Aim:
To look at the maternal and fetal outcome of elective, USS guided/urgent and emergency cervical cerclage in women with suspected cervical incompetence in accordance with local guidelines.

Audit objectives:
1. Gestational age reached in the elective/USS indicated group
2. Gestational prolongation in the emergency group
3. Indication for suture removal
4. Maternal morbidity
5. Fetal morbidity & mortality

Methods:
A retrospective case note review of all cervical cerclage procedures conducted at St Michaels Hospital for a 5 year period (July 2005 – July 2009). Final sample size 60 (83% of target sample). 32% [19] elective, 52% [31] urgent and 17% [10] emergency cerclages were performed

Results

1. Standard 1: Indication for referral in accordance with local guidelines. 100% compliance.

Fetal outcome: defined as NICU/SCBU admission, respiratory support, neurological support, sepsis, long-term follow-up was slightly higher in the emergency group-50% [5] (elective-32% [8], urgent-32% [10]). However, all births with no associated fetal mortality reached 36 weeks gestation.

2. Standard 4: Ultrasounds indicated cerclage performed in accordance with local guidelines. 100% compliance.

Fetal outcome:


Fetal mortality:
5 neonatal/fetal deaths occurred within the sample:
1. Delivered at 23 weeks – elective cerclage.
2. Delivered at 33 weeks (IUD PPROM) – urgent/USS guided cerclage.
3. Delivered at 23 weeks – urgent/USS guided cerclage.
4. Delivered at 19 weeks (infection post insertion) – emergency cerclage.
5. Delivered at 20 weeks (IUD SROM) – emergency cerclage.

Cervical cerclage is performed 100% in accordance with local guidelines, with the exception of vaginal swabs performance/documentation. Outcomes were poorer in women receiving emergency cerclage, especially when associated with a twin pregnancy. However, there is significant evidence to suggest increased length of gestation in all groups, with good outcomes if guidelines are adhered to.

Conclusion
1. Produce revised local guidance to reflect findings above and imminent release of new RCOG Green Top Guideline.
2. Highlight to the community midwives the importance of early referral and vaginal swab performance prior to referral.

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