

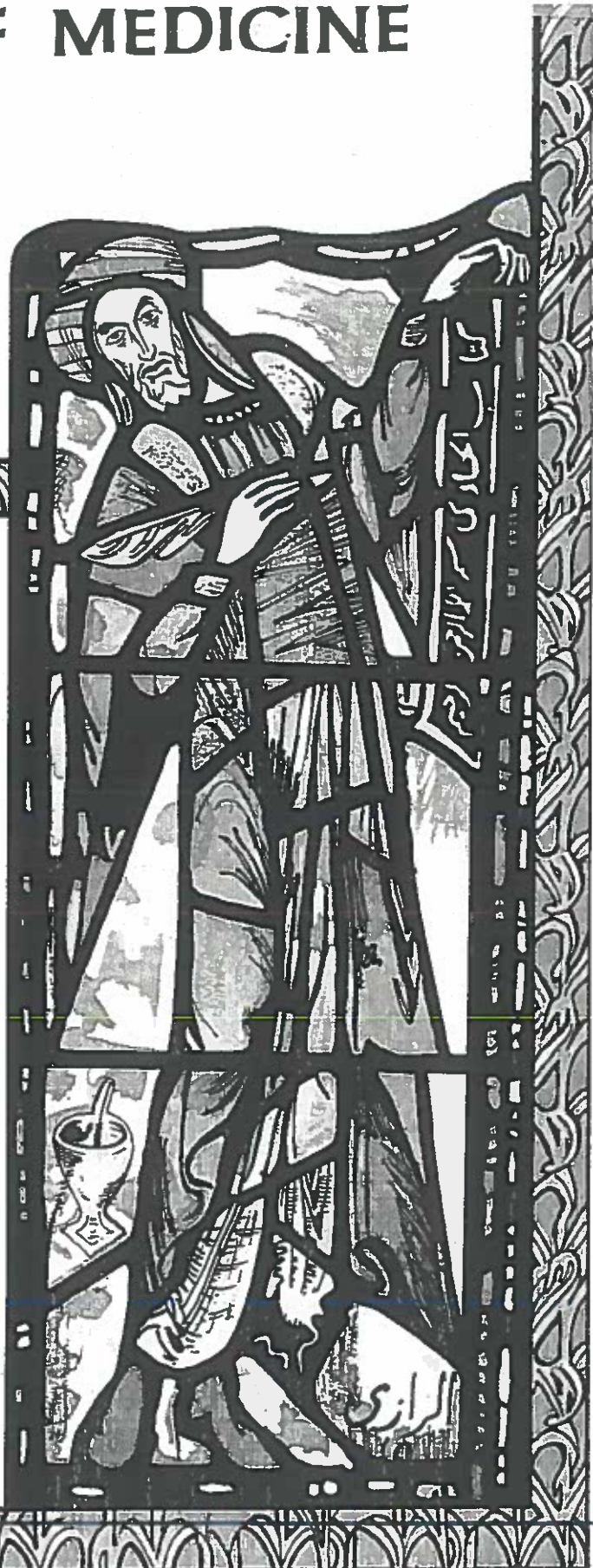
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Publishing Director :
Zeinab El- Gawady .
Tel. 3483481 - 3383388 - 3383384
& 010 (5174400)



Magd El Din Mohamed,
Magdy Hassan A. Kolaib,
Mohamed H.A. Monem,
Sherif M. S. Al Ghitany

Department of Obstetrics &
Gynecology, Ain Shams University

Cervical ripening: A randomized comparison between intra cervical Foley's catheter and intra vaginal Prostin E2

#Objective: The study aims at evaluating the efficacy and safety of intra cervical Foley's catheter as a pre induction cervical ripening agent. This is in comparison to intra vaginal Prostaglandin E2 (Dinoprostone). **#Study design:** Two groups of full term pregnant candidate for induction of labor with unripe cervix: Group I (n =35): cervical ripening is carried out by Dinoprostone 3 mg. in the posterior vaginal fornix, another dose may be applied six hours later if needed. Group II (n=35): cervical ripening by intra cervical Foley's catheter under traction with the balloon inflated after it passes the internal os. Patients of both groups are compared regarding the changes in Bishop score, ripening and delivery times, route of delivery and any recorded fetal or maternal complications. **#Results:** A significant improvement in Bishop score is achieved with Foley's catheter (yet the improvement in the score with Dinoprostone was better), and also a significant shorter ripening time. The total delivery time was nearly the same in both groups. Less maternal and fetal complications were recorded in the catheter group. **#Conclusion:** Intra cervical Foley's catheter can be considered as a safe and cheap method for pre induction cervical ripening especially in situations when Prostaglandins can't be used.

Introduction:

The onset of labor is normally preceded by gradual softening, thinning out and dilatation of the cervix, a process called cervical ripening. This ripening usually occurs in the pre labor phase. Ripening produces shorter labor, lower caesarian rates, and more favorable perinatal outcome (Mashiah and Wilkins, 1999).

The exact mechanism of cervical ripening remains unclear. However, it's suggested to be due to biochemical and structural changes within the cervix making it more compliant. These include decrease in collagen concentration, loose arrangement of the collagen bundles instead of being densely arranged and increase in water content. (Chez, 1998).

Cervical ripening and inducibility of the cervix are assessed by Bishop score (1964). The higher the score the easier is the delivery and the shorter is the induction-delivery time. Bishop supposed that a patient with a score higher than 8 is expected to have a delivery similar to that of patients in

spontaneous labor. Unripe cervix is found in high percentage of women dedicated for induction of labor. For instance it is 80 % among women with pregnancy reaching the fortysecond week (Greybush et al, 2001).

Pre induction cervical ripening can be conducted through both pharmacological and non-pharmacological methods. Pharmacological methods include: estradiol, estriol, relaxin, prostaglandins, prostaglandin - analogues and RU 486 (Brennand et al, 1997). Among the non-pharmacological methods are acupuncture, amniotomy, intra-cervical catheter, membrane stripping, and nipple stimulation. (Kenneth et al, 1998)

Prostaglandins have a wide variety of preparations and routes of administration, yet the most famous for cervical ripening is the intra vaginal or intra cervical prostaglandin E2 (PG E2) (Dinoprostone tablets). It has the advantage of being able to enhance cervical ripening and to induce myometrial contractility (Nunes et al, 1999). However, PG E2 has the disadvantages of being expensive,