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Oxytocin administration in mid-trimester saline abortions

Niels H. Lauersen, M.D. • Joseph D. Schulman, M.D. DOI: [https://doi.org/10.1016/0002-9378\(73\)90600-5](https://doi.org/10.1016/0002-9378(73)90600-5)

Abstract

Experience with 682 patients who underwent mid-trimester abortion by means of intra-amniotic instillation of 20 per cent sodium chloride solution was analyzed in order to find the procedure with the shortest abortion time and the lowest complication rate. The instillation-to-abortion time was influenced by the volume of saline instilled and by the saline excess, i.e., the amount by which the volume instilled exceeded the volume of amniotic fluid removed but not by the latter volume itself. There was some evidence of decreased abortion time with increased parity, while the gestational age was of no significant importance. The best method was found to be aspiration of 50 to 100 ml. of amniotic fluid and instillation of 200 ml. of 20 per cent saline solution in order to create a saline excess of 100 to 150 ml. Administration of large doses of oxytocin intravenously at a rate of 10 U. per hour started within 2 hours of the saline instillation shortened the mean abortion time and lowered the complication rate significantly compared to patients who received no oxytocin or were given oxytocin later. The risk of water intoxication can be minimized if 5 per cent dextrose in water and Ringer's lactate are infused alternately and oxytocin is discontinued should the urinary output decrease. The treatment of patients from whom no amniotic fluid can be obtained is discussed.

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References

1. Aburel E.
Comunicare la Societatea Stiintelor Medicale. 1934; (Iasi)

[Google Scholar](#)

2. Aburel E.
Rev. Med. Chir. Soc. Med. Nat. 1939; **50** (Iasi): 121

[Google Scholar](#)

3. Cioc M.
Gynecol. Obstet. 1948; **47**: 224

[Google Scholar](#)

4. Kovacs F.
Zentralbl. Gynaekol. 1948; **70**: 1097

[Google Scholar](#)

5. de Watteville H. • d'Ernst J.P.
Gynecologia. 1950; **130**: 425

[PubMed](#) • [Google Scholar](#)

6. Stamm O. • de Watteville H.
Gynecol. Obstet. 1954; **53**: 171

[PubMed](#) • [Google Scholar](#)

7. Brosset A.
Acta Obstet. Gynecol. Scand. 1958; **37**: 519

[Scopus \(11\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

8. Boero E.H.
Gynecol. Obstet. 1935; **32**: 305

[Google Scholar](#)

Zentralbl. Gynaekol. 1948; **70**: 62

[PubMed](#) • [Google Scholar](#)

10. Bengtsson L.P.

Bibl. Gynaecol. 1959; **20**: 45

[Google Scholar](#)

11. Svane H.

Dan. Med. Bull. 1960; **7**: 51

[Google Scholar](#)

12. Gustavii B. • Gothlin J.

Acta Obstet. Gynecol. Scand. 1971; **50**: 315

[Scopus \(11\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

13. Koren Z. • Pfeiffer Y. • Sulman F.G.

J. Reprod. Fertil. 1966; **12**: 75

[Scopus \(16\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

14. Greenhalf J.O. • Diggory P.L.C.

Br. Med. J. 1971; **1**: 28

[Scopus \(18\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

15. Hashizume K.

J. Jap. Obstet. Gynecol. Soc. 1950; **2**: 145

[Google Scholar](#)

16. Wagner G. • Karker H. • Fuchs F. • Bengtsson L.P.

Dan. Med. Bull. 1962; **9**: 137

[PubMed](#) • [Google Scholar](#)

17. Briggs W.B.

Br. Med. J. 1964; **1**: 701

 [opus \(8\)](#) • [Crossref](#) • [Google Scholar](#)



18. Cameron J.M. • Dayan A.D.

Br. Med. J. 1966; **1**: 1010

[Scopus \(41\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

19. Fuchs F.

Marcus S.L. Marcus C.C. *Advances in Obstetrics and Gynecology*. The Williams & Wilkins Company, Baltimore 1967

[Google Scholar](#)

20. Goodlin R.C. • McLennan C.E. • Choyce J.M. • Lee R.S. • Stickler J.E.

Obstet. Gynecol. 1969; **34**: 1

[PubMed](#) • [Google Scholar](#)

21. Mackenzie J.M. • Roufa A. • Tovell H.M.M.

Clin. Obstet. Gynecol. 1971; **14**: 107

[Scopus \(26\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

22. Craft I. • Musa B.

Lancet. 1971; **2**: 1058

[Scopus \(21\)](#) • [PubMed](#) • [Abstract](#) • [Google Scholar](#)

23. Schulman J.D. • Lauersen N.H.

Lancet. 1971; **2**: 606

[Scopus \(7\)](#) • [Crossref](#) • [Google Scholar](#)

24. Munoz L.

Am. J. Obstet. Gynecol. 1945; **50**: 114

[Google Scholar](#)

25. Wagatsuma T.

Am. J. Obstet. Gynecol. 1965; **93**: 743

[PubMed](#) • [Google Scholar](#)



agner G.

in. Obstet. Gynecol. 1966; **9**: 520



[Scopus \(20\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

27. Amris C.J. • Jepsen O.B.

Dan. Med. Bull. 1962; **9**: 143

[PubMed](#) • [Google Scholar](#)

28. Johnson J.W.C. • Cushner I.M. • Stephens N.L.

Am. J. Obstet. Gynecol. 1966; **94**: 225

[Scopus \(22\)](#) • [PubMed](#) • [Abstract](#) • [Full Text PDF](#) • [Google Scholar](#)

29. Olsen C.E. • Nielsen H.B. • Ostergaard E.

Int. J. Gynaecol. Obstet. 1970; **8**: 823

[Google Scholar](#)

30. Brewer L.L. • Johnson W.L. • Hunter C.A.

Am. J. Obstet. Gynecol. 1968; **101**: 1078

[Scopus \(13\)](#) • [PubMed](#) • [Abstract](#) • [Full Text PDF](#) • [Google Scholar](#)

31. Frigoletto F.D. • Pokoly T.T.

Obstet. Gynecol. 1971; **38**: 647

[PubMed](#) • [Google Scholar](#)

32. Berkowitz R.L.

Clin. Obstet. Gynecol. 1971; **14**: 107

[Scopus \(8\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

33. Weingold A.B. • Seigal S. • Stone M.L.

Obstet. Gynecol. 1965; **26**: 622

[PubMed](#) • [Google Scholar](#)

34. Csapo A.I.

Year Book Obstet. Gynecol. 1966–1967; : 126

[Google Scholar](#)



35. Berk H. • Ullman J. • Berger J.

Surg. Gynecol. Obstet. 1971; **133**: 955

[PubMed](#) • [Google Scholar](#)

36. Newton B.W.

Postgrad. Med. 1971; **50**: 213

[PubMed](#) • [Google Scholar](#)

37. Droegemueller W. • Greer B.E.

Am. J. Obstet. Gynecol. 1970; **108**: 606

[Scopus \(9\)](#) • [PubMed](#) • [Abstract](#) • [Full Text PDF](#) • [Google Scholar](#)

38. Hendricks C.H. • Helfand T. • Caldeyro-Barcia R.

Am. J. Obstet. Gynecol. 1959; **77**: 387

[Scopus \(10\)](#) • [PubMed](#) • [Abstract](#) • [Full Text PDF](#) • [Google Scholar](#)

39. Berkowitz R.L. • Fuchs F.

Clin. Obstet. Gynecol. 1971; **14**: 179

[Crossref](#) • [Google Scholar](#)

40. Csapo A.I. • Sauvage J.P. • Wiest W.G.

Am. J. Obstet. Gynecol. 1970; **108**: 950

[Scopus \(24\)](#) • [PubMed](#) • [Abstract](#) • [Full Text PDF](#) • [Google Scholar](#)

41. Wiest W.G. • Kerenyi T. • Csapo A.I.

Obstet. Gynecol. 1966; **27**: 589

[Google Scholar](#)

42. Goodlin R.C. • Kresch A.J. • Northway W.H.

Obstet. Gynecol. 1967; **29**: 442

[Google Scholar](#)

43. Gochberg S.H. • Reid D.E.

Obstet. Gynecol. 1966; **27**: 648



[PubMed](#) • [Google Scholar](#)

44. King T.M. • Friedman J. • Steer C.M.

Bull. Sloane Hosp. 1964; **10**: 14

[PubMed](#) • [Google Scholar](#)

45. Pulkkinen M.O. • Kivikoski A.

Acta Obstet. Gynecol. Scand. 1971; **50**: 149

[Scopus \(6\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

46. Bengtsson L.P. • Csapo A.

Am. J. Obstet. Gynecol. 1962; **83**: 1083

[Scopus \(24\)](#) • [PubMed](#) • [Google Scholar](#)

47. Schiffer M.A.

Obstet. Gynecol. 1969; **33**: 729

[PubMed](#) • [Google Scholar](#)

48. Burt R.L. • Oliver K.L. • Whitener D.L.

Obstet. Gynecol. 1969; **34**: 212

[PubMed](#) • [Google Scholar](#)

49. Gupta D.R. • Cohen N.H.

J. A. M. A. 1972; **220**: 681

[Scopus \(24\)](#) • [PubMed](#) • [Crossref](#) • [Google Scholar](#)

50. Schulman H. • Kaiser I.H. • Randolph G.

Obstet. Gynecol. 1971; **37**: 521

[PubMed](#) • [Google Scholar](#)

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