

Chapter 8

Cesarean Section and Surgical Techniques

Sadık KÜKRER¹

Ayfer Pepekak KÜKRER²

ABSTRACT

An increasing amount of deliveries in the Turkey are carried out by cesarean section. The method has changed little through the years but protection rates have improved significantly, primarily on account of improved preoperative planning. There's widespread debate about the advantages of cesarean section in contrast to vaginal delivery. It's crucial to keep excellent medical teaching as the amount of hard procedures is growing because of the increase in the speed of repeat cesarean sections. Surgical methods are reviewed along with problems linked to this typical procedure.(1) Protection of the mother and also price will be the two major areas of concern. Many scientific studies on the methods of executing a cesarean section have centered on lowering the working time, cost, wound infection and blood loss. Because cesarean section is essential, the most widely done operation in obstetrics, it's crucial that trainers and also trainees are acquainted with the fundamental medical methods which best practice has adhered to.(2)

INTRODUCTION

The cesarean birth rate ranges from 10% to 35% worldwide.(3) Caesarean section was practised over hundreds of years, though it's just lately become sufficiently protected that females are requiring it in the lack of various other indications. This has produced much controversy among health experts concerned in childbirth, besides the public. (4) The frequency of vaginal births is growing globally and in the country of ours in the recent past. The World Health Organization (WHO) suggests the cesarean rate shouldn't go over fifteen%. (5), (6) According to 2018 Ministry of Health statistics, yearbook of health data, cesarean sections among live births in Turkey was determined to be 54,9%. Primary Cesarean Sections

¹ MD., Department of Obstetrics and Gynecology, Adana City Education and Research Hospital, Adana, Turkey, sadikkukrer@hotmail.com

² MD., Department of Obstetrics and Gynecology, Adana Acıbadem Hospital, Adana, Turkey, ayferpepekak@hotmail.com

The Joel Cohen opening reduces blood loss since it stays away from superficial epigastric vessels and also makes hemostasis unnecessary. This way of opening the abdominal wall also avoids damage to the urinary bladder (the transverse opening of the parietal peritoneum). The single layer maintenance of the uterus with non-locking sutures is better regarding wound healing to a locking closure than staying away from the ischemic necrosis. Amniotic fluid might be spilled in the abdomen since its bacteriostatic properties. (31) Leaving the parietal and visceral peritoneum opened prevents adhesion development. (32)

The Misgav Ladach technique of cesarean delivery may be the most uncomplicated and least traumatic medical method of the oldest main surgical intervention in the history of medicine. It's safe and efficient. It reduces working time, blood loss, postoperative febrile morbidity, analgesics required, duration of hospitalization, seriousness and frequency of the postoperative and intraoperative complications, and duration of natural recovery. Experiencing the moment we understood the Misgav Ladach procedure, it changes into inevitable that this approach be accepted when the standard for cesarean section.

REFERENCES

1. Dempsey A, Diamond KA, Bonney EA, Myers JE. Cesarean section: techniques and complications. Vol. 27, *Obstetrics, Gynaecology and Reproductive Medicine*. Churchill Livingstone; 2017. p. 37–43.
2. Hema KR, Johanson R. Techniques for performing caesarean section. *Best Pract Res Clin Obstet Gynaecol*. 2001 Feb 1;15(1):17–47.
3. Moore TR. Cesarean delivery. In: *Fischer's Mastery of Surgery, Seventh Edition*. 4th ed. Philadelphia: Elsevier; 2018. p. 2119–27.
4. Simm A, Mathew D. Cesarean section: techniques and complications. *Obstet Gynaecol Reprod Med*. 2008 Apr 1;18(4):93–8.
5. Stjernholm YV. Cesarean Section: Reasons for and Actions to Prevent Unnecessary Caesareans. In: *Caesarean Section*. InTech; 2018. p. 101–21.
6. Aksoy H, Özyurt S, Aksoy Ü, Açmaz G, İdem Karadağ Ö, Alparslan Babayiğit M. Hastanemizdeki sezaryen hızı ve endikasyon dağılımları ışığında Türkiye'de sezaryen ile doğuma genel bakış. *Kocaeli Tıp Derg*. 2014;3(3):1–7.
7. Başara Bora B. et. al. The Ministry of Health Health Statistics Yearbook. Ankara: Republic of Turkey Ministry of Health General Directorate of Health Information Systems; 2019. 86–90 p.
8. Robson M, Hartigan L, Murphy M. Methods of achieving and maintaining an appropriate caesarean section rate. *Best Pract Res Clin Obstet Gynaecol*. 2013 Apr 1;27(2):297–308.
9. Sağlıkta Performans ve Kalite Yönergesi (2011) [Internet]. [cited 2020 May 4]. Available from: <https://kalite.saglik.gov.tr/TR,6581/saglikta-performans-ve-kalite-yonergesi-2011.html>
10. Gencdal N, Gencdal S, Aydogmus H, Kelekci S. Women ' s Health & Gynecology Comparison of Pfannensteil Kerr and Modified Misgav Ladach Methods of Cesarean

- Operation. Womens Heal Gynecol [Internet]. 2016 [cited 2020 May 20];2(3). Available from: www.scientonline.org
11. Oyarzún E, Vargas JE. Cesarean section. Philip J. Steer, BSc, MD, FRCOG F (hon), editor. Rev Chil Obstet Ginecol [Internet]. 4th ed. 1993 [cited 2020 Apr 28];58(6):485–6. Available from: <https://www.clinicalkey.com#!/content/book/3-s2.0-B9781416059080000740?scrollTo=%23h10000598>
 12. Gee ME, Dempsey A, Myers JE. Cesarean section: techniques and complications. Vol. 30, *Obstetrics, Gynaecology and Reproductive Medicine*. Churchill Livingstone; 2020. p. 97–103.
 13. Diamond KA, Bonney EA, Myers JE. Cesarean section: Techniques and complications. Vol. 24, *Obstetrics, Gynaecology and Reproductive Medicine*. Elsevier; 2014. p. 39–44.
 14. Sumikura H. Anesthetic management of urgent cesarean section. *Hypertens Res Pregnancy*. 2016 Mar 30;4(1):1–5.
 15. Lanneau GS, Muffley P, Magann EF. Cesarean Birth: Surgical Techniques. *Glob Libr Women's Med*. 2009;
 16. Mathai M, Hofmeyr GJ, Mathai NE. Abdominal surgical incisions for caesarean section. Vol. 2013, *Cochrane Database of Systematic Reviews*. John Wiley and Sons Ltd; 2013.
 17. Lanowski J-S, Kaisenberg CS von. The Surgical Technique of Caesarean Section: What is Evidence Based? In: *Caesarean Section*. InTech; 2018.
 18. Agrawal P. Comparative Study - Electrocautery versus Scalpel in Joel Cohen Abdominal Incision in Women Undergoing Cesarean Section. *Int J Sci Res* [Internet]. 2018 [cited 2020 May 21];8. Available from: www.ijsr.net
 19. Olyaeemanesh A, Bavandpour E, Mobinizadeh M, Ashrafinia M, Bavandpour M, Nouhi M. Comparison of the Joel-Cohen-based technique and the transverse Pfannenstiel for caesarean section for safety and effectiveness: A systematic review and meta-analysis. *Med J Islam Repub Iran*. 2017;31(1):313–8.
 20. Abuelghar WM, El-Bishry G, Emam LH. Joel-Cohen insizyona karşı{dotless}li{dotless} k Pfannenstiel insizyon ile Sezaryen do umlar: Bir randomize kontrollü çali{dotless}şma. *J Turkish Ger Gynecol Assoc*. 2013 Dec;14(4):194–200.
 21. Dahlke J, Mendez-Figueroa H, Sperling J, Maggio L, Connealy B, Chauhan S. Evidence-Based Cesarean Delivery for the Nonobstetrician. *Surg J* [Internet]. 2016 Mar 18 [cited 2020 May 21];02(01):e1–6. Available from: <http://www.thieme-connect.de/DOI/DOI?10.1055/s-0035-1570316>
 22. Hudić I, Bujold E, Fatušić Z, Skokić F, Latifagić A, Kapidžić M, et al. The Misgav-Ladach method of cesarean section: A step forward in operative technique in obstetrics. *Arch Gynecol Obstet*. 2012 Nov 3;286(5):1141–6.
 23. Xavier P, Ayres-De-Campos D, Reynolds A, Guimarães M, Costa-Santos C, Patrício B. The modified Misgav-Ladach versus the Pfannenstiel-Kerr technique for cesarean section: A randomized trial. *Acta Obstet Gynecol Scand* [Internet]. 2005 Sep 1 [cited 2020 May 21];84(9):878–82. Available from: <http://www.blackwell-synergy.com/doi/abs/10.1111/j.0001-6349.2005.00631.x>
 24. O'Grady, Veronikis, Chervenak, McCullough, Kanaan, Tilson. Cesarean delivery. In: O'Grady, Gimovsky, editors. *Operative Obstetrics*. Baltimore: Williams & Wilkins; 1995. p. 239–87.
 25. Şahin N, Genc M, Turan GA, Kasap E, Güçlü S. A comparison of 2 cesarean section methods, modified Misgav-Ladach and Pfannenstiel-Kerr: A randomized controlled study. *Adv Clin Exp Med*. 2018;27(3):357–61.

26. Poon LCY, Emmanuel E, Ross JA, Johns J. How feasible is expectant management of interstitial ectopic pregnancy? *Ultrasound Obstet Gynecol* [Internet]. 2014 Mar [cited 2020 May 18];43(3):317–21. Available from: <http://doi.wiley.com/10.1002/uog.12565>
27. Fatusic, Hudic, Music. Misgav-Ladach caesarean section: general consideration. *Acta Clin Croat*. 2011;50(1):95–9.
28. Kulaš T, Habek D, Karša M, Bobić-Vuković M. Modified Misgav Ladach method for cesarean section: Clinical experience. *Gynecol Obstet Invest* [Internet]. 2008 Jun 14 [cited 2020 Apr 28];65(4):222–6. Available from: <https://www.karger.com/Article/FullText/113044>
29. Darj E, Nordstrom M-L. The Misgav Ladach method for cesarean section compared to the Pfannenstiel method. *Acta Obstet Gynecol Scand* [Internet]. 1999 Jan 1 [cited 2020 Apr 28];78(1):37–41. Available from: <http://www.blackwell-synergy.com/links/doi/10.1034%2Fj.1600-0412.1999.780109.x>
30. Grundsell H, Rizk D, Kumar R. Randomized study of non-closure of peritoneum in lower segment cesarean section. *Acta Obstet Gynecol Scand* [Internet]. 1998 Jan 1 [cited 2020 May 13];77(1):110–5. Available from: <http://www.informaworld.com/op enurl?genre=article&doi=10.1034/j.1600-0412.1998.770123.x&magic=crossref%7C%7CD404A21C5BB053405B1A640AFFD44AE3>
31. Larsen B, Davis B, Charles D. Critical assessment of antibacterial properties of human amniotic fluid. *Gynecol Obstet Invest* [Internet]. 1984 [cited 2020 May 13];18(2):100–4. Available from: <https://www.karger.com/Article/FullText/299057>
32. Duffy DM, DiZerega GS. Is peritoneal closure necessary? Vol. 49, *Obstetrical and Gynecological Survey*. 1994. p. 817–22.