

Review on Spina Bifida

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Abstract: *Spinal bifida is a congenital defect in the spinal cord of the fetus. The most serious forms of infection lead to spinal cord and spinal cord nerve injury, which has a significant negative impact on the life of newborns. Currently, prenatal procedures require abdominal laparoscopic surgery and uterine hysterectomy, which may have serious consequences and risks for mothers. Renal injury and renal failure are among the most serious complications of spinal cord injury. Over the past few decades, a comprehensive treatment strategy has been implemented to minimize renal injuries. Furthermore, most patients dry their urine after primary school.*

Keywords: Spinal bifida

REFERENCES

- [1]. C. E. Eduardo Castilla Vice-Chairperson Lorenzo D Botto, M. K. Bakker, V. Carlo Mirabello, P. Mastroiacovo, and S. Zezza Emanuele Leoncini Priscilla Carcione Lucia Mazzanti, "Annual report 2011 (with data for 2009)," International clearinghouse for birth defects surveillance and research (ICBDSR), Tech. Rep., 2010. [Online]. Available: www.icbdsr.org
- [2]. A. J. Copp, N. S. Adzick, L. S. Chitty, J. M. Fletcher, G. N. Holmbeck, and G. M. Shaw, "Spina bifida," Nature Reviews Disease Primers, vol. 1, 4 2015
- [3]. M. Meuu, C. Meuli-Simmen, G. M. Hutchins, C. D. Yingling', K. M. Hoffman, M. R. Harrison, and N. S. Adzick, "In utero surgery rescues neurological function at birth in sheep with spina bifida," NATURE MEDICINE, vol. I, no. 4, 1995.
- [4]. M. Meuli and U. Moehrlen, "Fetal Surgery for Myelomeningocele: A Critical Appraisal," European Journal of Pediatric Surgery, vol. 23, no. 2, pp. 103–109, 2013.
- [5]. A. J. Copp, N. S. Adzick, L. S. Chitty, J. M. Fletcher, G. N. Holmbeck, and G. M. Shaw, "Spina bifida," Nature Reviews Disease Primers, vol. 1, 4 2015.
- [6]. Lee-Yang, Leonard J. Paulozzi, and C. Wong, "Survival of infants with spina bifida: a population study, 1979–94," Pediatric and perinatal epidemiology, pp. 374–378, 2001.
- [7]. J. P. Bruner, W. O. Richards, N. B. Tulipan, T. L. Arney, and D. Nashville, "Endoscopic coverage of fetal myelomeningocele in utero," Am J Obstet Gynecol, pp. 153–158, 1999
- [8]. Pippa Oakeshott¹, Gillian M Hunt, Alison Poulton, and Fiona Reid, "Open spina bifida: birth findings predict long-term outcome," Archives of Disease in Childhood, vol. 97, pp. 474–476, 2012.
- [9]. M. C. Dewan and J. C. Wellons, "Fetal surgery for spina bifida," Journal of Neurosurgery: Pediatrics, vol. 24, no. 2, pp. 105–114, 2019
- [10]. T. Vandebroek, M. Ourak, C. Gruijthuijsen, A. Javaux, J. Legrand, T. Vercauteren, S. Ourselin, J. Deprest, and E. VanderPoorten, "MacroMicro Multi-Arm Robot for Single-Port Access Surgery," International Conference on Intelligent Robots and Systems (IROS), 2019.
- [11]. Campbell LR, Dayton DH, Sohal GS. Neural tube defects: a review of human and animal studies on the etiology of neural tube defects. Teratology 1996;34:171-
- [12]. Moore KL, Persaud TV. The developing human: clinically oriented embryology. Philadelphia (PA): Saunders; 1993.
- [13]. Muller F, O'Rahilly R. Human embryology and teratology. 2nd ed. New York: Wiley-Less Publications; 1996.

- [14]. Moore KL, Persaud TV. The developing human: clinically oriented embryology. Philadelphia (PA): Saunders; 1993.
- [15]. Volpe, J.J. Neural Tube Formation and Prosencephalic Development. In Neurology of the Newborn; Saunders: London, UK, 2008; Volume 889, pp. 5–8. ISBN 9781416039952.
- [16]. Blom, H.J.; Shaw, G.M.; den Heijer, M.; Finnell, R.H. Neural Tube Defects and Folate: Case Far from Closed. *Nat. Rev. Neurosci.* 2006, 7, 724–731
- [17]. Botto LD, Moore CA, Khoury MJ, Erickson JD. Neural-tube defects. *N Engl J Med* 1999;341:1509-19.
- [18]. McLone DG, Knepper PA. The cause of Chiari II malformation: a unified theory. *PediatrNeurosci* 1989;15:1-12
- [19]. International Center on Birth Defects. International Clearinghouse for Birth Defects Monitoring Systems (ICBDMS), Annual Report 2011 with Data for 2009. International Center on Birth Defects; 2011.
- [20]. Canfield MA, et al. Anencephaly and spina bifida among Hispanics: maternal, sociodemographic, and acculturation factors in the National Birth Defects Prevention Study. *Birth Defects Res A ClinMolTeratol.* 2009; 85:637–646.
- [21]. Little J, Elwood JM. Epidemiology of neural tube defects. In: Kiely M, ed. Reproductive and Perinatal Epidemiology. Boca Raton: CRC Press, 1991: 251–336.
- [22]. Haddow JE, Mitchell LE, Kloza EM, Thanhauser D. Neural tube defects after gastric bypass. *Lancet* 1986; 1: 1330.
- [23]. Martin L, Chavez GF, Adams MJ, et al. Gastric bypass surgery as maternal risk factor for neural tube defects. *Lancet* 1988; 1: 640–41.
- [24]. Dennis M, Landry SH, Barnes M, Fletcher JM. A model of neurocognitive function in spina bifida over the life span. *J IntNeuropsychol Soc.* 2006; 12:285–296.
- [25]. Brock DJH, Sutcliffe RG. Early prenatal diagnosis of anencephaly. *Lancet.* 1972; 300:1252–12
- [26]. Amniotic fluid acetylcholinesterase electrophoresis as a secondary test in the diagnosis of anencephaly and open spina bifida in early pregnancy Report of the Collaborative Acetylcholinesterase Study. *Lancet.* 1981; 318:321–324. [No authors listed.]
- [27]. Wald NJ, et al. Maternal serum-alpha-fetoprotein measurement in antenatal screening for anencephaly and spina bifida in early pregnancy. Report of UK collaborative study on alphafetoprotein in relation to neural-tube defects. *Lancet*
- [28]. Campbell S, Pryse-Davies J, Coltart TM, Sellar MJ, Singer JD. Ultrasound in the diagnosis of spina bifida. *Lancet.* 1975; 305:1065–1068. [PubMed: 48732]
- [29]. Biggio, JR Jr; Owen, J.; Wenstrom, KD.; Oakes, WJ. Can prenatal ultrasound findings predict ambulatory status in fetuses with open spina bifida? *Am J Obstet Gynecol.* 2001; 185:1016–1020. [PubMed: 11717624]
- [30]. Buyukkurt S, et al. Prenatal determination of the upper lesion level of spina bifida with threedimensional ultrasound. *FetalDiagnTher.* 2013; 33:36–40. [PubMed: 22986465]