

Early Vaccination Producing Response in Child's Circulation

Daniel Brook*

Department of Neonatologist, University of Sydney, Australia

Abstract

Most heart diseases in young children are congenital. Older children are more likely to have acquired heart diseases such as rheumatic fever, endo-myocardial fibrosis. The heart may also be affected in many systemic disorders i.e. infections, malnutrition, anaemia etc. Cyanosis is a bluish discoloration of the skin as result of reduced amount of haemoglobin in the circulating blood. Cyanosis can best be detected under the fingernails or on the mucus membranes of the mouth.

Keywords: Cyanosis; Endo-myocardial fibrosis; Growth and development; Venous system; Subarachnoid spaces

Introduction

Clubbing of fingers and toes often occurs. One of the main causes of this is chronic under saturation of the blood with oxygen. Any child with congestive heart failure should be referred to hospital whenever possible [1]. In all cases where you have to start treatment, check weight of the child, record the pulse and respiration carefully at few hours intervals and indicate the exact time of any drugs given. Congenital heart disease is a structural malformation of the heart or great blood vessels present at birth. In most congenital heart diseases the cause is unknown. The only known cause is damage to the foetus by rubella Virus, when the mother is one to three months pregnant, or by chromosomal abnormality in children with Down's syndrome. Besides the above-mentioned symptoms, failure of normal growth and development, repeated attacks of respiratory tract infections, and a loud murmur is usually present [2]. Many children with congenital heart disease die in early childhood. The prognosis is particularly poor in children with cyanotic heart disease. Rheumatic fever is an inflammatory disease related to streptococcal infection affecting mostly the heart and joints, but also other tissues including the brain and skin. It occurs most commonly in children between three and fifteen years. Rheumatic fever usually follows about few weeks after an infection of the throat or skin with beta-haemolytic streptococci [3]. This is due to a specific reaction of tissues, mainly the heart and the joints, to the streptococcal toxins. Congestive heart failure occurs when the cardiac output is inadequate to meet the metabolic need of the body and results in accumulation of excessive blood volume in the pulmonary and/or systemic venous system [4].

Methodology

Meningitis is an inflammation of the meninges and is caused by viral, bacterial or fungal organisms. Meningitis is further classified as aseptic, septic and tuberculosis meningitis [5]. Aseptic meningitis refers either viral or other causes of meningeal irritation such as brain abscess or blood in the subarachnoid spaces. Septic meningitis refers to meningitis caused by bacterial organisms such as meningococcus, Staphylococcus, or influenza bacillus [6]. Tubercles meningitis is caused by the tubercle bacillus. Meningeal infections generally originate in one of two ways either through the blood stream as a consequence of other infections such as cellulites or by direct extension after traumatic injury to the facial bones. In a small number of cases the cause is iatrogenic or secondary to invasive procedures [7]. The symptom of meningitis results from infection and increased intracranial pressure. Headache and fever are frequently the initial symptoms. Change in level of consciousness, Are associated with bacterial meningitis. As the

illness progresses, lethargy, unresponsiveness, and coma may develop [8]. Stiff neck, is an early sign. Any attempts at flexion of the head are difficult and causes severe pain. Positive kerning sign, when the patient is lying with the thigh flexed on the abdomen, the leg cannot be completely extended. Positive Brudzink's sign, When the patient's neck is flexed, flexion of the knees and hips is produced. Photophobia: Extreme sensitivity to light is present Seizures and increased increased Intracranial Pressure, Seizures occur secondary to focal area of cortical irritability while increased increased Intracranial Pressure results from cerebral oedema characterized by headache, vomiting and depressed level of consciousness. A lumbar puncture is carried out by inserting a needle into the lumbar subarachnoid space through the third and fourth or fourth and fifth lumbar interspace to withdraw Cerebrospinal Fluid for diagnostic and therapeutic purposes [9].

Discussion

The purposes are to obtain Cerebrospinal Fluid for examination, measure and reduce Cerebrospinal Fluid pressure determine the presence or absence blood in the Cerebrospinal Fluid etc. Cerebrospinal Fluid should be clear and colourless. Pink blood-tinged or grossly bloody Cerebrospinal Fluid may indicate a cerebral contusion, laceration, or subarachnoid haemorrhage. Sometimes with a difficult lumbar puncture the Cerebrospinal Fluid initially is bloody because of local trauma but then becomes clearer. Usually specimens are obtained for cell count, culture, glucose and protein [10]. The specimen should be sent to the laboratory immediately because changes will take place and alter the result if the specimens are allowed to stand. When convulsions are prolonged or repeated the condition is known as Status epilepticus. Such convulsions are very exhausting and unless controlled may lead to patient death. Some patients do not show the first or second part of the fit, and suddenly become unconscious for only a few seconds. The eye may stare but see nothing and these are the lesser fit of epilepsy. Glomerlonephritis refers to inflammation of the kidneys caused by an antigen antibody reaction following an infection in some part of the body [11]. Acute glomerlonephritis is

*Corresponding author: Daniel Brook, Department of Neonatologist, University of Sydney, Australia, Email: daniel@gmail.au

Received: 23-Oct-2023, Manuscript No. NNP-23-121286; **Editor assigned:** 26-Oct-2023, Pre-QC No. NNP-23-121286 (PQ); **Reviewed:** 09-Nov-2023, QC No. NNP-23-121286; **Revised:** 15-Nov-2023, Manuscript No. NNP-23-121286 (R); **Published:** 22-Nov-2023, DOI: 10.4172/2572-4983.1000374

Citation: Brook D (2023) Early Vaccination Producing Response in Child's Circulation. Neonat Pediatr Med 9: 374.

Copyright: © 2023 Brook D. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

predominately a disease of childhood and is the most common type of nephritis in children. Nephrotic syndrome refers to a common complex characterized by oedema, marked proteinuria hypercholesterol-aemia, and hypo-albumin-aemia. Although there are many types of the diseases lipid nephrosis is the most common in children. The exact cause is not known, but the symptom complex results from large loss of protein in the urine, too great to the body to replenish by albumin synthesis [12]. Urinary tract infection refers to an infection within urinary system. The lower urinary tract or the lower portion of the ureters or the upper urinary tract or both may be involved. Inflammatory changes occur in the affected portion of the urinary tract Inflammation results in urine retention and stasis of urine in the bladder There are inflammatory changes in the renal pelvis and throughout the kidney when this organ is involved, The kidney may become large and swollen Eventually, the kidney become small, tissue is destroyed, and renal function fails. Tuberculosis in children almost always results from primary infection with *Mycobacterium tuberculosis* rather than reactivation of latent disease as found in adults [13]. Tuberculosis in a child indicates exposure to an adult with contagious disease and should prompt identification and treatment of the source case. Most children infected with *M. tuberculosis* are asymptomatic and are only identified a positive tuberculin skin reaction. Tuberculin skin testing consists of the intradermal injection of tuberculin units of purified protein derivatives. Previous immunization with bacille calmette-guerin does not alter these definitions [14]. The presence of clinical manifestations distinguishes tuberculosis disease from tubercle infection. A chest radiography usually service to distinguish children with the disease from those with the infection. Because the sputum of children with pulmonary tuberculosis is usually negative for mycobacterium, either by acid-fast stain or culture, these children are non-infectious. Including cervical adenitis, tuberculosis meningitis, and miliary tuberculosis occurs in app. One quarter of cases of children with tuberculosis disease. Infants and young children who immune-compromised or malnourished are at risk of the serious and often fatal form of miliary or tuberculosis meningitis. Children with tuberculosis infection should receive isoniazid prophylaxis for few months [15]. Children with pulmonary tuberculosis are usually treated with a few month regimen consisting of isoniazid, rifampin, and pyrazinamide for the first few months and isoniazid and rifampin the remaining few months. In areas where isoniazid and rifampin resistance is prevalent, a fourth drug should be added to the regimen. Burns are a frequent form of childhood injury. A second degree burn or more of the body surface in a child younger than few years or a second degree burn or more of the body surface in a child over a year is considered a very serious injury. The effects of burn are not limited to the burn area. In children older than few months, HIV infection is defined by detection of anti-HIV antibody alone. The World Health Organization case definition for AIDS surveillance in children where HIV testing is not available is fulfilled in the presence of at least few major signs and few minor signs. The World Health Organization case definition for AIDS surveillance in children where HIV testing is available is complex and depends on advanced clinical and laboratory diagnostic facilities. Ophthalmic neonatorum is an eye caused by the *Neisseria gonorrhoea*, chlamydia from genital tract during delivery, or from the infected hands of personnel. The new-born acquires the infection during birth process by direct contact with infected material from vagina of the mother. The onset is usually within two or three days after birth, but symptoms may appear earlier. There is redness and swelling of the lids and a profuse, purulent discharge. The common complication is corneal ulceration with resulting opacity and partial or complete loss of vision. The extent of the handicap depends on the duration and severity of untreated

condition. The treatments of Ophthalmia neonatorum include: prompt antibiotic injections and antibiotic eye ointments or drops to prevent eye damage and isolation of the infant. Congenital syphilis is a Transplacental infection of the foetus before the fourth month of pregnancy by the spirochete *Treponema pallidum*. It may result in miscarriage, still-birth, or manifest itself in early infancy. All measures which decrease the incidence of acquired syphilis in adult's serological tests for syphilis in all pregnant women is desirable. The purpose of immunization is to protect against infectious diseases before they attack any individual. Immunization is the cost-effective method of infectious disease control. Once an immunization program has been established, it must continue or the disease will return to affect large numbers of unprotected individuals. The aim is to immunize in the first year of life against those infections that cause severe disease in infants and children; and to follow up it up with reinforcing inoculations and additional vaccines according to age. The most serious diseases of infants are whooping cough, diphtheria, tetanus, tuberculosis, measles, and poliomyelitis.

Conclusion

The immunogenicity of the vaccine: good immunogenic vaccine need only one injection to produce long lasting immunity, weak immunogens requires several injections to establish protective antibody levels-ensure protection against the disease. The epidemiology of the disease-when the disease occurs at an early age, immunization must be given early tuberculosis.

Acknowledgement

None

Conflict of Interest

None

References

1. Pisarski K (2019) The global burden of disease of zoonotic parasitic diseases: top 5 contenders for priority consideration. *Trop Med Infect Dis* 4: 1-44.
2. Kahn LH (2006) Confronting zoonoses, linking human and veterinary medicine. *Emerg Infect Dis* 12: 556-561.
3. Bidaisee S, Macpherson CNL (2014) Zoonoses and one health: a review of the literature. *J Parasitol* 2014: 1-8.
4. Cooper GS, Parks CG (2004) Occupational and environmental exposures as risk factors for systemic lupus erythematosus. *Curr Rheumatol Rep* 4: 367-374.
5. Parks CG, Santos ASE, Barbhaiya M, Costenbader KH (2017) Understanding the role of environmental factors in the development of systemic lupus erythematosus. *Best Pract Res Clin Rheumatol* 31: 306-320.
6. Barbhaiya M, Costenbader KH (2016) Environmental exposures and the development of systemic lupus erythematosus. *Curr Opin Rheumatol* 28: 497-505.
7. Cohen SP, Mao J (2014) Neuropathic pain: mechanisms and their clinical implications. *BMJ* 348: 1-6.
8. Mello RD, Dickenson AH (2008) Spinal cord mechanisms of pain. *BJA* 101: 8-16.
9. Bliddal H, Rosetzky A, Schlichting P, Weidner MS, Andersen LA, et al (2000) A randomized, placebo-controlled, cross-over study of ginger extracts and ibuprofen in osteoarthritis. *Osteoarthritis Cartilage* 8: 9-12.
10. Maroon JC, Bost JW, Borden MK, Lorenz KM, Ross NA, et al. (2006) Natural anti-inflammatory agents for pain relief in athletes. *Neurosurg Focus* 21: 1-13.
11. Birnesser H, Oberbaum M, Klein P, Weiser M (2004) The Homeopathic Preparation Traumeel® S Compared With NSAIDs For Symptomatic Treatment Of Epicondylitis. *J Musculoskelet Res* 8: 119-128.

12. Gergianaki I, Bortoluzzi A, Bertias G (2018) Update on the epidemiology, risk factors, and disease outcomes of systemic lupus erythematosus. *Best Pract Res Clin Rheumatol* EU 32: 188-205.
13. Cunningham AA, Daszak P, Wood JLN (2017) One Health, emerging infectious diseases and wildlife: two decades of progress? *Phil Trans UK* 372: 1-8.
14. Sue LJ (2004) Zoonotic poxvirus infections in humans. *Curr Opin Infect Dis* MN 17: 81-90.
15. Rao NP, Shailaja U, Mallika KJ, Desai SS, Debnath P (2012) Traditional Use Of Swarnamrita Prashana As A Preventive Measure: Evidence Based Observational Study In Children. *IJRIAP* 3: 1-5.