Original Research

# CLINICOEPIDEMIOLOGICAL AND ETIOLOGICAL PROFILE OF CHRONIC DIARRHEA IN CHILDREN 1 TO 18 YEARS OF AGE: A HOSPITAL BASED CROSSECTIONAL STUDY

**Ifrah Nisar Wani[1], Mohsin Rashid[2], Abdus Sami Bhat[3*], Ishaq Malik[4], Umer Amin Qureshi[5], Aaqib Zaffar Banday[6]**

[1]Senior Resident, Department of Pediatrics, Children Hospital Government Medical College Srinagar, Jammu and Kashmir, India.
[2]Assitant Professor, Department of Pediatrics, Children Hospital Government Medical College Srinagar, Jammu and Kashmir, India.
[3*]Professor, Department of Pediatrics, Children Hospital Government Medical College Srinagar, Jammu and Kashmir, India.
[4]Associate Professor, Department of Pediatrics, Children Hospital Government Medical College, Srinagar, Jammu and Kashmir, India.
[5]Professor, Department of Pediatrics, Children Hospital Government Medical College Srinagar, Jammu and Kashmir, India.
[6]Assitant Professor, Department of Pediatrics, Children Hospital Government Medical College Srinagar, Jammu and Kashmir, India.

**Corresponding Author:** Abdus Sami Bhat

**Email:** [1]Farahwani027@gmail.com, [2]Mohsin.rashid85@gmail.com, [3*]samiaiims@gmail.com, [4]sfsyedfarheen@gmail.com, [5]dromarqureshi@gmail.com, [6]maaqibzb@gmail.com

## ABSTRACT

Chronic diarrhea lasts for more than 14 days, is noninfectious and associated with malabsorptive features like abdominal distention, failure to gain weight with fall in growth chart percentiles. The approach and management of chronic diarrhea is different from the management of acute diarrhea. Chronic diarrhea can have many myriad etiologies. Although etiologies are more or less same, their relative frequency can differ according to the regions it is reported from. We therefore tried to look at clinical features and possible etiologies of chronic diarrhea among children presenting to a tertiary care hospital. Being a referral hospital there is a subtle cjhance of referral bias. Celiac disease turned out to be the most common cause of chronic diarrhea followed by cow's milk protein allergy. Secondary lactose intolerance was less common. Toddlers diarrhea was also less probably due to referral bias. Pallor and anemia was the most common presenting clinical sign apart from diarrhea.

**Keywords:** Celiac Disease, Cow Milk Protein Allergy, Chronic Diarrhea.

## INTRODUCTION

Diarrhea is one of the most common causes of morbidity and mortality in children worldwide and is second leading cause of death in children under five years of age. Diarrhea is defined as stool volume >10g/kg/day in infants and toddlers, and 200g/day in older children [1]. Change in stool consistency is more important than stool frequency [2]. Persistent diarrhea is an episode of diarrhea which is of presumed infectious etiology, which starts acutely and lasts for more than 14 days. Chronic diarrhea lasts for more than 14 days, is noninfectious and associated with malabsorptive features like abdominal distention, failure to gain weight with fall in growth chart percentiles.

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Diarrhea lasting for more than two to four weeks occurs in about 3 to 5 per cent of population worldwide [3].

In developing countries, chronic diarrhea is typically associated with serial enteric infections and malnutrition; manifested by chronic enteropathy, with impaired mucosal healing and malabsorption [4,5,6]. In developed countries chronic diarrhea is likely to be induced by underlying disease causing malabsorption or maldigestion [7,8].Celiac disease causing chronic diarrhea is common, occurring in 1% to 3% of Western population, but is also common in South America, Middle East, Africa, and India[9]. It is very common in India especially in North India with a prevalence approaching 1% [10, 11]. Cow's milk protein allergy (CMPA) is increasingly being recognized in India over the past few decades and can present up to 2 years of age.

Cystic fibrosis, diarrhea occurs as a result of pancreatic insufficiency. [12]. Chronic non-specific diarrhea of infancy or toddler's diarrhea is most

 

commonly seen in first three years of life. There is painless passage of four or more large unformed stools for four or more weeks without failure to thrive or a specific definable cause [13].Inflammatory bowel disease (IBD) can present in children and adolescents with chronic diarrhea with passage of blood or mucus in stools and other extraintestinal manifestations. Neoplastic causes of chronic diarrhea are rare and includes diseases like gastrinoma and VIPOMAS [14]

Studies from developed countries show an increased incidence of inflammatory bowel disease (IBD) in children especially Crohn's disease [15].No exact recent prevalence data on etiological spectrum of chronic diarrhea is available from India [16]. In past studies done in last 2-3 decades have shown varied etiologies.(17,18) hence we tried to study etiological spectrum of persistant or chronic diarrhea over a period of 18 months in our hospital.

**Aims and Objectives**

1. To determine the etiology of persistent or chronic diarrhea in children more than one year of age admitted in a tertiary care hospital.
2. To determine the clinical profile of children above one year of age presenting with persistent or chronic diarrhea in a tertiary care hospital.

## METHODS

The study was conducted in Post Graduate Department of Pediatrics, GB Pant Hospital, an associated hospital of Government Medical College, Srinagar. The study was an observational study conducted from November 2018 to May 2020. Children in the age group of 1 to 18 years visiting the Department of Pediatrics, GB Pant General Hospital with persistent or chronic diarrhea were included in the study .Persistent diarrhea was defined as the one that starts acutely and lasts more than 14 days presumed infectious etiology. Chronic diarrhea was defined as diarrhea that lasts more than 2 weeks and does not have an acute onset and is usually associated with malabsorbtive features. Children less than 1 year of age were excluded because we did not have access to high end investigations needed to characterize infantile chronic diarrhea including electron microscopy, genetic studies or stool electrolytes.

Informed consent was taken from the parents. All children fulfilling inclusion criteria were subjected to thorough history taking and examination according to a predesigned proforma. A proper dietary history was taken and anthropometry was performed. Basic investigations like complete blood count, liver and kidney function tests, stool examination for pH and reducing substances, stool routine examination, stool fat, stool for ova cysts, atypical organisms were done in all patients, Other investigations were tailored according to the clinical features which included celiac serology, CBNAAT of gastric aspirate, Sweat chloride, Delta 508 mutation studies, Upper GI endoscopy, colonoscopy, CECT abdomen etc. Cow's milk protein allergy was diagnosed by milk withdrawal and rechallenge test in case of improvement after withdrawal. Other diagnoses were made according to standard diagnostic guidelines.The data was entered in Microsoft excel. Categorical variables are presented as percentages and proportions. Continuous values are presented as means and standard deviations.The study was approved by the institutional ethical committee. The study was approved by the institutional ethical committee of Government Medical College Srinagar.

## OBSERVATION AND RESULTS

The study included a total of 38 cases. Among them, 24 (63.2%) were males and 14 (36.8%) were females. Majority of cases were in the age group of 1 to 5 years (table 1). Weight loss was the most common complaint in addition to diarrhea and was present in 17 (44.7%) cases followed by vomiting that were present in 17 (44.7%).Mean duration of breastfeeding was 14.7 ±4.79 months; mean age of introduction of cow's milk being 11.83 ±3.02 months; mean age of introduction of wheat being 9.9 ±1.62 months. Pallor was the most common presenting clinical sign found in 28 (73.7%) cases followed by signs of rickets and dehydration which were present in 8 (21.1%) cases each. Frequency of other signs and symptoms is depicted in table 2. Anthropmetry is depicted in table 3. Hypoalbuminemia was present in 4 (10%). Other specific investigations are described in table 4. Upper gastrointestinal (UGI) endoscopy was done in 21(55.2%) cases. Endoscopic features suggestive of celiac disease were present in 13(34.2%) cases; 2(5.26%) had normal endoscopic findings as depicted in table 5. Histopathologic findings are also depicted in table 5. Four (10.5%) cases were subjected to lower GI endoscopy; out of which 3(7.9%) cases had normal endoscopic findings; 1(2.6%) case had gross findings of hemorrhage with ulcers in the descending and sigmoid colon. Histpathological findings are summarized in table 5. Final diagnosis was reached in 35 cases while 3 patients remained undiagnosed. The diagnostic spectrum of our cases is depicted in table 6

Celiac disease (CD) was the most common etiology in our study being present in 13(34.2%) cases. Among 13 cases of celiac disease, 10 (76%) were males with mean age of 5.4 years as celiac disease is common after 2 years of age with mean duration of symptoms being 166 days. The mean age of introduction of wheat in these patient was 9.75 months. History of vomiting was present in 8 cases. Weight loss history was present in 10 cases. Dehydration was present in 3 cases. Pedal edema

was present in 3 cases. Malnutrition was present in 11 cases. Hepatomegaly was present in 2 cases and ascites was present in 1 case. One case had splenomegaly. Two cases had developmental delay. These patients had mean hemoglobin of 8.5g% and anemia was present in 11 (84%) cases. They had mean leucocyte count of 12.21 thousand/$mm^3$ and mean platelet count of 342 thousand/$mm^3$. One case had thrombocytopenia with platelet count of 79,000/$mm^3$. Asymptomatic transaminitis was seen in 1 case. Hypoalbuminemia was seen in 3 cases. All 13 cases of celiac disease had normal Ig A levels with high anti tTG antibody titres. In upper gastrointestinal endoscopy, scalloping was seen as a major finding with histopathology showing crypt hyperplasia in all 13 cases and villous atrophy in 8 cases.

Cow milk protein allergy (CMPA) was present in 10 (26.3%) cases. Out of 10 cases of CMPA, 7 were males with mean age of presentation being 1.48 years. The mean duration of symptoms was 70 days. The mean age of introduction of cow's milk was 10 months. Six cases had history of blood in stools with history of weight loss in 4 cases. History of vomiting was present in 2 cases. Dehydration was present in 1 case while 3 cases were malnourished. The mean hemoglobin was 8.96g%. Anemia was present in 6 (60%) cases. The mean leucocyte count was 12.6 thousand/$mm^3$. Stool for occult blood was positive in 8 cases. All cases improved after elimination of cow's milk from the diet of the child and mother.

Three (7.9%) cases were diagnosed as having toddler's diarrhea in our study with 2 males and one female. The mean age for the diagnosis was 2.2 years with mean duration of symptoms being 105 days. The cases hadnormal pattern of growth and development. The cases had haemoglobin of 9.5g%. The mean leucocyte count was 9.2thousand/$mm^3$. Stool was negative for occult blood. Anti tTG was done in 2 cases and turned out to be negative.

Secondary lactose intolerance was a cause in 3 (7.9%) cases with 2 being females and one being male. The mean age of presentation was 1.4 years with duration of symptoms being 70 to 75 days. They presented with abdominal pain, bloating along with diarrhea. Perianal excoriation was present in all 3 cases. The mean hemoglobin was 10g%. The stool forreducing substances was positive in all cases. The patients showed improvement in symptoms following the reduction in lactose content of feeds.

Cystic fibrosis present in 2 (5.3%) cases.The mean age of presentation was 1.4 years. Among the two cases, one was male and other was female. They had history of recurrent respiratory tract infections and fever with history of pneumonia during infancy in the male child. The stools were oily with stool for fat being positive in both cases. Both had failure to gain weight. One (2.6%) case had developmental delay. The mean hemoglobin was 7.8g% with mean leucocyte count of 12 thousand/$mm^3$. The sweat chloride quantification was done in both cases and was above the normal range.

One (2.6%) male child had intestinal tuberculosis. The age ofthe child was 12 years. The duration of symptoms was for around 70 to 75 days. The child has associated history of fever especially during evening hours with weight loss. The child was emaciated with weight for height below -3SD. The patient had hepatosplenomegaly. The hemoglobin was 7g% with leucocyte count of 13thousand/$mm^3$. Stool for occult blood was positive. CBNAAT of gastric aspirateb was positive in the patient and CECTof abdomen showed thickened ileal loops.

One patient had intestinal lymphangiectasia. The age of the girl child was 2 years with duration of symptoms being 6 months. Thechild presented with pedal edema and ascites. Patient had developmental delay. The hemoglobin was 8g%. The leucocyte count was 9thousand/$mm^3$. The child had albumin of 2.5g%. Ultrasound of abdomen revealed gross ascites. Upper gastrointestinal endoscopy revealed visible dilated lymphatics in small intestine. The histopathology confirmed the diagnosis as there were dilated lacteals in duodenal mucosa.

One male child had neuroendocrine tumor. The age of the child was 13 months. The duration of symptoms was 2 months. The child had associated pedal edema. There was a palpable abdominal mass. CECT of abdomen revealed neuroendocrine tumor arising from stomach. The patient had some relief in symptoms on octreotide infusion.

One male child had inflammatory bowel disease (IBD). The age of the child was 15 years. The duration of symptoms was 120 days. The associated symptoms were blood in stools, intermittent low grade fever, weight loss and joint pains. The child was pale, emaciated with weight for height below -3SD. The hemoglobin was 4.2g%. The leucocyte count was 10 thousand/$mm^3$. There was transaminitis with hypoalbuminemia. Stool for occult blood was positive. USG abdomen revealed moderate ascites. The stool for occult blood was positive. Upper gastrointestinal endoscopy was normal; whereas lower gastrointestinal endoscopy revealed hemorrhagic ulcers in descending and sigmoid colon with histopathology showing deep ulcers with transmural inflammation.

In 3 (7.9%) cases, diagnosis could not be ascertained and the cause remained unknown.

## DISCUSSION

Of 38 children with chronic diarrhea in this cohort. Males 24 (63.2%) comprised maximum number of cases. Similar trends were reported in other studies conducted by Bhaskar Shenoy et al[19]Yaccha et al[11]in which male cases outnumbered females. No sex predilection was shown by other studies

conducted by B Altuntas et al[17 ] Prabhakar Durairaj et al[26].Most of the children 31 (81.6%) cases were in age group of 1 to 5 years. In a study conducted by Bhaskar Shenoy et al[19] maximum number of cases (44%) were in 1 to 5 year age group. In the study by B Altuntas et al[17] maximum cases belonged to less than 5 year age group.The reason for this is obvious. Most of our cases had either celiac disease or CMPA and both these conditions usually present below 5 years of age. The most common presenting features in addition to diarrhea were weight loss 17(44.7%), vomiting 13(34.2%),fever 12(31.6%), mucus in stools 8(21.1%), blood in stools 8(21.1%) pain abdomen 7(18.4%), swelling in feet 5(13.2%), abdominal distention 4(10.5%), oily stools 2(5.2%), joint pain 1(2.6%). The study by Bhaskar Shenoy et al[19] reported blood with stools in 52% of patients, vomiting in 38%, weight loss in 26%, dehydration in 24%, edema 12%.We did not have much blood in stools as a ymptom as majority of our cases were having celiac disease. In a study conducted by O.P. Mishra and Taru Dhawan et al [23] blood in stools was present in 66.6% of cases, and abdominal distention in 52.6% and abdominal pain in 28.1%. As per WHO standrads, out of 38 cases, 19(50%) children had malnutrition. In a study conducted by FO Akinbami et al [27] malnutrition was present in 63% of cases. In our study 6(15.7%) were severely malnourished (W/H < -3SD), Thus impact of chronic diarrhea on nutrition is substantial due to malabsorption and associated loss of appetite. Anemia (86.8%) and leucocytosis (60.5%) were two main hematological abnormalities. The high prevalence of anemia in our data set is a reflection of iron, vitamin B12 and Folic acid deficiency which is associated with chronic diarrhea. Mean hemoglobin was 8.4g%. Leucocytosis was due to associated infections in these children. .In a study conducted by Shirish Bhatnagar et al [20] the mean hemoglobin was 8.2g%. Celiac disease was the most common etiology of chronic diarrhea in our study being present in 13(34.2%) cases. Other studies have reported the prevalence between 12% to 37%Shirish Bhatnagar et al [20]. Altuntas et al [17]. Ujjal Poddar et al [21]. Bhaskar Shenoy et al [19] .These patients had mean hemoglobin of 8.5g% and anemia was present in 11 (84%) cases. This in accordance with the study conducted by Neha Berry et al[24] where anemia was present in 93% cases of celiac disease. All 13 cases of celiac disease had normal Ig A levels with high anti tTG antibody titres. In upper gastrointestinal endoscopy, scalloping was seen as a major finding with histopathology showing crypt hyperplasia in all 13 cases and villous atrophy in 8 cases. This is in accordance with the study conducted by Shirish Bhatnagar et al [20] where scalloping was the major feature on upper gastrointestinal endoscopy and histopathology revealing subtotal villous atrophy in 64.5% cases and total villous atrophy in 35.48%.Another major diagnosis in our study was cow milk protein allergy present in 10 (26.3%) cases. This is in accordance with study done by Lee et al[25] reported CMPA in 29% cases and Ujjal Poddar[21] reported CMPA in 35% cases. Shirish Bhatnagar et al [20] reported CMPA in 11.76%. Altuntas et al [17] reported CMPA as a cause in 17%; with Yaccha et al [11] reporting it to be cause in 6%. In study done by Bhaskar Shenoy et al[19] CMPA was a cause in 62% and Iqra Mushtaq et al[22] reported CMPA as a cause in 80.6%. This may be due to the fact that we have excluded <1 year age group from our study which is the usual age of presentation of CMPA. 3 (7.9%) cases were diagnosed as having toddler's diarrhea in our study with 2 males and one female which is in similarity with Bhaskar Shenoy et al [19] who reported it to be present in 2% cases. Ujjal Poddar et al [21] reported toddler's diarrhea in 16%.The cases had a normal pattern of growth and development. The cases had a mean hemoglobin of 9.5g%. The lesser number of toddlers diarrhea cases in our dataset could be due to a selection bias as our study was hospital based. Secondary lactose intolerance was a cause in 3 (7.9%) cases .Lee et al [25] also reported it to be a cause in 19% cases. The relatively less than expected proportion of secondary lactose intolerance could be because of selection bias as this was a hospital based study and secondary lactose intolerance patients take treatment on OPD basis or in peripheral hospitals. Prevelance in the community is expected to be large.The next cause in our study was cystic fibrosis present in 2 (5.3%) cases which is in similarity to that reported by Bhaskar Shenoy[19] in their study as 2%. Altuntas et al [17] reported it in 10% cases in their study. Other less common causes in our study were intestinal tuberculosis 1 (2.6%) case, intestinal lymphangiectasia 1 (2.6%) case, neuroendocrine tumor 1 (2.6%), inflammatory bowel disease 1 (2.6%). 3 (7.9%) cases remained unknown.Shirish Bhatnagar et al[20] reported intestinal tuberculosis inn 2.35% of cases. Yaccha et al [11] reported intestinal tuberculosis in 5%. Bhaskar Shenoy et al [19] reported it in 2.5% cases.Similarly we had one case of intestinal lymphangiectasia. This is in accordance with Shirish Bhatnagar et al [20] who reported it in 1.17%. Similarly, Bhaskar Shenoy et al [19] reported intestinal lymphangiectasia in 4%.We had one male child with inflammatory bowel disease (IBD). This is in similarity with Shirish Bhatnagar et al [20] who reported it in 1.17%; Bhaskar Shenoy et al[19] reported it in 2%.

## CONCLUSION

In this part of the world, among a cohort of children with chronic diarrhea seen in a tertairy care centre celiac disease turned out to be the most common

cause of chronic diarrhea followed by cow's milk protein allergy. Secondary lactose intolerance was less common. Toddlers diarrhea was also less probably due to referra; bias**..** Pallor and anemia was the most common presenting clinical sign apart from diarrhea

## REFRENCES


1. Vanderhoof JA (1998) Chronicdiarrhea Pediatr REV 19: 418-422
2. Gibbons T Fuchs GJ. Chronic enteropathy: clinical aspects. Nestle Nutr Workshop Ser Pediatr Program 2007; 59:89.
3. Vernacchio L, Vezina RM, Mitchell AA, et al. Characteristics of persistent diarrhea in a community-based cohort of young US children. J Pediatr Gastroenterol Nutr 2006; 43:52.
4. Bhutta ZA, Ghishan F, Lindley K, et al. Persistent and chronic diarrhea and malabsorption: Working Group report of the second World Congress of Pediatric Gastroenterology, Hepatology, and Nutrition. J Pediatr Gastroenterol Nutr 2004; 39 Suppl 2:S711.
5. Preidis GA, Hill C, Guerrant RL, et al. Probiotics, enteric and diarrheal diseases, and global health. Gastroenterology 2011; 140:8.
6. Darrow DC, Yannet H. The changes in the distribution of body water accompanying increase and decrease in extracellular electrolyte. J Clin Invest. 1935;14:266-75.
7. Binder HJ. Causes of chronic diarrhea. N Engl J Med 2006; 355:236.
8. Guarino A, De Marco G, Italian National Network for Pediatric Intestinal Failure. Natural history of intestinal failure, investigated through a national network-based approach. J Pediatr Gastroenterol Nutr 2003; 37:136.
9. Vriezinga SL, Schweizer JJ, Koning F, Mearin ML. Coeliac disease and gluten-related disorders in childhood. Nat Rev Gastroenterol Hepatol 2015; 12:527.
10. Makharia KG, VermaKA, Amarchand R, Bhatnagar S, Das P, Goswami A, et al. (2011) Prevalence of celiac disease in the northern part of India: A community based study. J Gastroenterol Hepatol. 26:894-900.
11. Yachha SK, Misra S, Malik AK, Nagi B, Mehta S (1993) Spectrum of malabsorption syndrome in north Indian children. Indian J Gastroenterol 12: 120-125.
12. Borowitz D, Baker SS, Duffy L, Baker RD, Fitzpatrick L, et al. (2004) Use of fecal elastase-1 to classify pancreatic status in patients with cystic fibrosis. J Pediatr 145: 322-326.
13. Benninga MA, Faure C, Hyman PE, et al. Childhood Functional Gastrointestinal Disorders: Neonate/Toddler. Gastroenterology 2016.
14. Goday PS, Cohen MB. Secretory tumors. In: Pediatric Gastrointestinal disease, 4th, Walker WA, Goulet O, Kleinman RE, et al (Eds), BC Decker, Ontario 2004.p. 1057.
15. Malaty HM, Fan X, Opekun AR, Thibodeaux C, Ferry GD. Rising incidence of inflammatory bowel disease among children. J Pediatr Gastroenterol Nutr 2010;50:27-31.
16. Bhan MK, Bhandari N, Sazawal S, Clemens J, Raj P, Levine MM, et al. Longitudinal study of diarrhoeal disease among young children in rural North India. Bull WHO. 1989;67:281-8.
17. Altuntas B, Gul H, Yarali N, Ertan U. Etiology of chronic diarrhea. Indian J Pediatr. 1999;66:657-61.
18. Rastogi A, Malhotra V, Uppal B. Etiology of chronic diarrhoea in children. Trop Gastroenterol. 1998;19:45-9.
19. Bhaskar Shenoy , Sunil Kumar Dodderi. The clinical spectrum of chronic diarrhea in children in a tertiary care hospital. Shenoy B et al. Int J Contemp Pediatr. 2018 Jul; 5(4):1267-1271.
20. Shirish Bhatnagar, Romesh Gautam, Geetika Srivastava, Kabeer A. Khan, Savitri Thakur. Chronic dia?Crrhea in North Indian children: a widening etiological spectrum. Bhatnagar S et al. Int J Contemp Pediatr. 2014 May; 1(1):37-41. http://www.ijpediatrics.com.
21. Ujjal Poddar, Jaya Agarwal, Surendar Kumar Yaccha, Anshu Srivastava. Toddler's diarrhea: Is it an under-recognized entity in developing countries. Ujjal Poddar et al. Journal of tropical pediatrics 59 (6), 470-475, 2013.
22. Iqra Mushtaq et al. Causes of chronic non-infectious diarrhea in infants less than 6 months of age: rarely recognized entities. Iqra Mushtaq et al. J Ayub Med Coll Abbotabad. Jan-Mar 2017.
23. O. P. Mishra et al. Endoscopic and histopathological evaluation of preschool children with chronic diarrhea. O.P. Mishra et al. Journal of Tropical Pediatrics Volume 47 April 2001.
24. Neha Berry et al. Anemia in celiac disease is multifactorial in etiology: A prospective study from India. Neha Berry et al. JGH Open 2018.
25. Lee WS, Boey CCM. Chronic diarrhea in infants and young children: causes, clinical features, and outcome. J Pediatr Child Health. 1999;35:260-
26. Prabhakar Durairaj, Sasivarathan Raju, Sivaraman Thirumalaikumarasamy. Clinical profile and risk factors for persistent diarrhea in children under five years of age in an urban referral centre. International Journal of Contemporary Pediatrics Vol 4 No 6 (2017). http://dx.doi.org/10.18203/2349-3291. Ijcp
27. F O Akinbami et al. Pattern of chronic diarrhea in children: a prospective analysis of causes,

clinical features and outcome. Niger Postgrad Med J. 2006 Mar.20174156

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