

MANAGEMENT OF PAEDIATRIC INTUSSUSCEPTION: A CASE SERIES OF PNEUMATIC REDUCTION, RECURRENCE AND SURGICAL INTERVENTION

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ABSTRACT:

Paediatric intussusception is an important cause of acute intestinal obstruction in infants and young children and requires timely diagnosis and management. This case series included 14 paediatric patients managed at SRM Medical College Hospital and Research Centre, SRM Hospital, between March 2024 and March 2026. Clinical presentation, ultrasonographic findings, anatomical type, pneumatic reduction, recurrence, surgical intervention, hospital stay, post-treatment imaging, and follow-up were evaluated. Ileocolic intussusception was identified in 13 patients, while one child had colocolic intussusception. Pneumatic reduction achieved reduction in 13 patients, whereas one child required operative management after unsuccessful non-operative reduction. Recurrent intussusception occurred in four patients. Two children required surgery, including diagnostic laparoscopy with manual reduction and Ladd's procedure. No complications were documented, and all patients underwent post-treatment imaging and clinical follow-up. Pneumatic reduction was effective in most patients, while surgery remained necessary in selected cases requiring operative escalation.

KEYWORDS: Paediatric intussusception; Pneumatic reduction; Recurrence; Surgical intervention; Ileocolic intussusception

INTRODUCTION

Paediatric intussusception is a significant etiological agent of acute intestinal obstruction in infants and young children and it develops when part of the intestine telescopes into another pair of bowel segments. Clinical manifestations are inconsistent and can be characterized by periodical abdominal pain, vomiting, bloody stool, abdominal distension, and palpable abdominal mass. The classical triad is not always triadic and incomplete or atypical presentations can slow down the process of recognition and treatment. Early clinical evaluation and correct management are thus significant to minimize morbidity with childhood intussusception (Elzeneini & Cusick, 2023). The first imaging modality of choice is ultrasonography since it is non-invasive, readily accessible, and can be very helpful in the process of diagnosing the diagnosis. Typical sonographic appearances, such as the target or doughnut sign, can be used to facilitate fast diagnosis of intussusception and determine the anatomy of the target. Ultrasonography is also significant in the process of non-operative reduction guidance in the right patients (Vakaki et al., 2023). Air-enema or pneumatic reduction is a therapeutic modality that can be employed as the first-line intervention in clinically appropriate children and may reverse bowel continuity and prevent the need to operate in most instances (Ma et al., 2020).

A number of clinical and procedural factors can impact the result of pneumatic reduction. A percentage of children might be unresponsive to non-operative reduction and will then need more attention or surgery (Alsinan et al., 2024). There are also procedural factors such as the circumstances in which reduction is done, which may affect therapeutic outcomes (Khorana et al., 2023). Additional optimization of the reduction methods has helped to maintain the further increase in the non-operative treatment of paediatric intussusception (Kabeer et al., 2024). After initial reduction, recurrence is still of significant consideration. Repeat ileocolic intussusception might necessitate repeat non-operative reduction, additional assessment, or operative treatment based on the clinical situation (Cho et al., 2020). Recurrent episode also has been identified as a clinically significant reason behind further hospital presentation among young children (Ferrantella et al., 2020). Surgery is needed in cases where non-operative reduction fails, in cases of recurrence with other clinical issues or where a suspect underlying operative pathology exists. Early detection of children that will eventually need surgery has thus become a significant feature in modern management (Liu et al., 2024).

The current case series is a description of 14 paediatric patients with intussusception, treated at the SRM Medical College Hospital and Research Centre, SRM Hospital, in the period between March 2024 and March 2026. It pays attention to clinical manifestation, ultrasonographic, anatomic type, pneumatic reduction, recurrence, surgery, hospitalization and follow-up. This case series sought to characterize the pattern and short-term outcomes of the

management of paediatric intussusception and specifically pneumatic reduction, recurrence, and operative intervention requirement.

2. Case Presentation

This case series included 14 paediatric patients with intussusception treated at SRM Medical College Hospital and Research Centre, SRM Hospital, March 2024- March 2026. The cases were described based on demographic characteristics, presenting symptoms, ultrasonographic observations, the type of anatomy of intussusception, pneumatic reduction, recurrence, the need to manage with an operation, the length of stay in the hospital, the post-therapeutic imaging, and the clinical follow-up.

2.1 Case 1

2.1.1 Clinical History

The case study of 9-month-old male with a history of abdominal pain and bloody stool shows that the patient had a 13-hour history of abdominal pain and bleeding stool. No vomiting or fever. There were no abdominal distension and no palpable abdominal mass. The ultrasonographic assessment of suspected intussusception was taken after the clinical presentation.

2.1.2 Diagnostic Evaluation

The typical positive target sign was seen in abdominal ultrasonography, which proved ileocolic intussusception. A lead point was identified, although the exact anatomy and pathology was not described. The lead point could not be further characterized, and the diagnosis was made based on the appearance of the ultrasonography and anatomical involvement.

2.1.3 Management

Pneumatic reduction was the main treatment that was administered to the baby. There were no repeated incidences of intussusception recorded in the further clinical course and surgical intervention was not necessary. Management was consequently non-operative, and there was a clinical observation according to a reduction followed and no need of further surgical operation in the period of treatment recorded.

2.1.4 Follow-up and Outcome

The post-reduction training was not complex and the baby spent 2 days in the hospital. Imaging after the procedure was done, and thereafter, the patient was subjected to clinical follow-up. No complications were reported over the observation time, and no additional therapeutic intervention was needed over the observed clinical course after pneumatic reduction.

2.2 Case 2

2.2.1 Clinical History

The case of a 2-year-old boy who has a weight of 13 kg and a 10-hour history of abdominal pain and bloody stool was presented. There was no vomiting or fever. No evidence of abdominal distension was seen and no palpable mass in the abdomen was found. Diagnostic imaging of the acute gastrointestinal presentation was then performed on the child.

2.2.2 Diagnostic Evaluation

Ultrasonography showed a typical pseudokidney sign and ileocolic intussusception. The presence of a lead point was reported, but its anatomical location, etiology and pathology were not elaborated. The combination of the imaging results, along with the clinical presentation, made the diagnosis and informed further non-operative management.

2.2.3 Management

The child has been subjected to pneumatic reduction of ileocolic intussusception. There was no evidence of recurrent episode in the course of the next clinical period and no operative treatment was needed. Non-operative management of the patient was then adopted and the patient placed under clinical supervision after reduction without any further treatment or surgical intervention.

2.2.4 Follow-up and Outcome

The post-treatment course of the child was uncomplicated, and the child spent 2 days at the hospital. Imaging was done after the procedure and follow-up was done clinically. No complications or frequent episodes were reported during the period of the follow-up, and a patient did not need additional operative or non-operative treatment.

2.3 Case 3

2.3.1 Clinical History

A 1-year-old male patient with a 10-kg weight and 8-hour history of abdominal pain and bloody diarrhea was presented. There was no vomiting or fever. No abdominal distension, no palpable abdominal mass was detected. Ultrasonographic evaluation of suspected paediatric intussusception was subsequently done based on the clinical presentation.

2.3.2 Diagnostic Evaluation

Ultrasonography of the abdomen revealed a target sign and proved ileocolic intussusception. A lead point was detected; it was not characterized further in terms of its anatomical localization and pathology. Radiological or pathological details of the lead point were not mentioned, and treatment was done as per the verifiable sonographic diagnosis.

2.3.3 Management

Pneumatic reduction was carried out as the primary intervention of the ileocolic intussusception. There was no record of a repeat occurrence and the patient did not need surgery. In the patient under assessment, the reduction was followed by a clinical course, and the patient completed the treatment course documented without the necessity to repeat reduction or manage the disease with surgery.

2.3.4 Follow-up and Outcome

The child was in the hospital 2 days after treatment. The post-reduction course was simple, and post-procedure imaging and follow-up clinical process were performed. No problems or frequent occurrences were reported within the period in which they were recorded, and no additional treatment was necessary after the pneumatic reduction.

2.4 Case 4

2.4.1 Clinical History

The case of a 4-month-old male infant with a weight of 5 kg showed up after 7 hours of symptoms, and bloody stool was passed as the main clinical symptom. There was no abdominal pains, vomiting, or fever. There was no abdominal distension or palpable abdominal mass. Additional diagnostic testing was done to determine the bowel pathology.

2.4.2 Diagnostic Evaluation

Ultrasonography revealed a target sign and proved ileocolic intussusception. When evaluated, a lead point was detected; nevertheless, its anatomical location and pathological features were not specified. The typical sonographic feature made the diagnosis and justified the application of non-operative reduction strategy as the first management choice.

2.4.3 Management

The infant was subjected to pneumatic reduction and a repeat case of intussusception was later reported thereafter. There was no agreement between the clinical course and operative intervention. The resonance interval, the number of recurrent episodes, and even the type of treatment received on the recurrence were not described, thus preventing additional characterization of how it was handled.

2.4.4 Follow-up and Outcome

The baby was in the hospital 4 days and had post-treatment imaging and follow-up. There were no reported complications in the course recorded. Albeit recurrence was observed after pneumatic reduction, operative treatment was not necessary, and there was no further adverse clinical outcome reported over the period of follow-up available.

2.5 Case 5

2.5.1 Clinical History

A 5-year-old male patient with a weight of 20 kg came with a history of abdominal pain, vomiting, bloody diarrhea, and fever of 8 hours. There was no abdominal distension, and no palpable abdominal mass. The acute gastrointestinal and systemic manifestations were combined and ultrasonographic assessment of the possible intussusception was taken.

2.5.2 Diagnostic Evaluation

Target sign was observed with the help of abdominal ultrasonography and proved ileocolic intussusception. The presence of a lead point was observed but the exact anatomical location and the pathology of the point was not stated. Further characterization of the lead point was not possible and further management was done based on the established ileocolic intussusception.

2.5.3 Management

Pneumatic reduction was done on the child as the first intervention. Another episode of intussusception then followed; but the clinical course was not subjected to operative intervention. The period of time between the first decrease and the second one, and the particular treatment of the second episode were not specified further.

2.5.4 Follow-up and Outcome

The patient stayed in the hospital 3 days after treatment. Imaging after the procedure was performed and the clinical follow-up recorded. There were no complications during the course recorded. Even though the recurrence was developed following the pneumatic reduction, surgical management was not necessary, and no further adverse event was reported in the follow-up.

2.6 Case 6

2.6.1 Clinical History

A 5-month-old male patient had a 5-hour history of abdominal pain and bloody stool with a weight of 8 kg. There was no vomiting or fever. There was no abdominal distension or an abdominal palpable mass. The baby was then given ultrasonographic examination to confirm the diagnosis of suspected intussusception.

2.6.2 Diagnostic Evaluation

Ultrasonography showed a typical target sign and proved the ileocolic intussusception. The diagnostic evaluation revealed a lead point; the exact anatomical location and pathological nature was not mentioned. The typical sonographic appearances made the diagnosis and also acted as a guide to further management using non-operative reduction method.

2.6.3 Management

The infant received ileocolic intussusception pneumatic reduction. There was no repeat episode in the following clinics and no surgical intervention was necessary. The patient was thus maintained on non-operative care where no further therapeutic interventions were administered even as clinical observation was done in line with the reduction and no further need to carry out any other intervention was done in the course of the period recorded.

2.6.4 Follow-up and Outcome

The clinical course was not complicated after reduction and the infant was kept in the hospital 2 days. The post-procedure imaging and follow-up of a clinical follow-up were performed. No problems or repeat attacks were reported over the follow-up period recorded, and no additional non-operative or operative treatment was needed.

2.7 Case 7

2.7.1 Clinical History

The case report of a 2-year-old girl with a body weight of 12 kg, after 18 hours of symptoms, exhibited pain and vomiting in the abdomen, bloody diarrhea, fever, abdominal distention, and palpable mass in the abdomen. This was one of the larger clinical presentations in the series, and the findings of gastrointestinal, systemic, and abdominal examination were present at the time of presentation.

2.7.2 Diagnostic Evaluation

The presence of a target sign on abdominal ultrasonography confirmed colocolic intussusception, the only case of colocolic in the series. The presence of a lead point was also mentioned, but its exact anatomical position and pathology were not determined. The ultrasound results confirmed the diagnosis and differentiated this case with the ileocolic typically dominant pattern.

2.7.3 Management

The first treatment option was pneumatic reduction to which the child was subjected. Another history of recurrent intussusception was then reported; but no surgical operation was necessary in the reported clinical history. The interval to recurrence and any other non-operative treatment that did not follow were not outlined and thus no further description of recurrent-episode treatment was elaborated.

2.7.4 Follow-up and Outcome

This patient was kept in hospital 2 days and was subjected to post treatment imaging and clinical follow up. There were no complications recorded in the hospitalization or the period that was recorded. Although recurring intussusception was reported, it was not treated with the operation, and no other adverse clinical outcome was reported in the follow-up.

2.8 Case 8

2.8.1 Clinical History

The case of a 7-month-old boy with a weight of 6 kg after 10 hours of complaints reported is the main clinical characteristic with bloody stool. There was no abdominal pain, vomiting, fever, abdominal distension, or palpable abdominal mass. Additional diagnostic testing was done to determine the etiology of the acute gastrointestinal manifestation.

2.8.2 Diagnostic Evaluation

The typical target sign was demonstrated in the abdominal ultrasonography and proved the presence of ileocolic intussusception. It was reported that a lead point was identified but not its anatomical location or pathological features were further elaborated. The typical ultrasound image made the diagnosis and formed the foundation of going on with non-operative reduction.

2.8.3 Management

Pneumatic reduction was the main treatment procedure to which the infant underwent. Recurrent intussusception was not observed in the course of the clinical, and no operative treatment was needed. The patient was hence treated in a non-operative method whereby after the reduction, the patient was observed clinically without any need to take any therapeutic procedure.

2.8.4 Follow-up and Outcome

After treatment, the baby stayed in hospital 2 days. They were followed up with post-procedure imaging and clinical follow-up. No complications, and recurrent episodes were reported throughout the clinical course recorded, and the patient did not need surgical treatment or any other therapeutic procedure after pneumatic reduction.

2.9 Case 9

2.9.1 Clinical History

A 2-month old 1-year old male patient presented with 9 hours of abdominal pain and bloody bowel movements. There was no vomiting or fever, and the abdominal distension, as well as palpable abdominal mass, were absent. Ultrasonography was then used to assess the clinical presentation in order to ascertain intussusception.

2.9.2 Diagnostic Evaluation

Abdominal ultrasound revealed a target sign and proved ileocolic intussusception. A lead point was observed but its anatomical position and pathology was not given. There was no further characterization of the lead point and the diagnosis was made based on the typical sonographic appearance.

2.9.3 Management

The pneumatic reduction was the main therapeutic measure of the child. No reoccurring intussusception was reported after the treatment and there was no need of operative intervention. The later clinical progression was handled in a conservative manner with observation following reduction and not requiring repeat reduction or further invasive therapy.

2.9.4 Follow-up and Outcome

The patient experienced a normal course of post-reduction and spent 2 days in the hospital. Imaging of the post-treatment and follow-up of clinical follow up were conducted. The child did not experience any other complications or recurrent episodes during the time of the recording, and no further intervention was needed, except that of pneumatic reduction.

2.10 Case 10

2.10.1 Clinical History

A four-year-old male patient weighing 15kg had reported abdominal pains, vomiting, bloody diarrhea, fever, abdominal distension and palpable abdominal mass 7 hours into the symptoms. The child showed a wide spectrum of presentation such as gastrointestinal symptoms, systemic and positive abdominal examination results.

2.10.2 Diagnostic Evaluation

Ultrasonography showed a typical target appearance and proved ileocolic intussusception. A lead point was observed but its exact anatomical position and pathological type was not further described. The imaging evidence, along with the typical clinical presentation, justified treatment intervention aimed at the decrease of the length of the intussuscepted bowel segment.

2.10.3 Management

Pneumatic reduction failed to reduce the intussusception and operative management was required. The child then had diagnostic laparoscopy and manual reduction. Additional operative instructions were not given. This was a case that presented the patient where the first non-operative method failed and surgery was needed.

2.10.4 Follow-up and Outcome

This was the longest hospital stay in the series, as the child stayed in a hospital 8 days. The postoperative regime was uneventful and post-procedure imaging and follow-up clinical assessment were done. The given period of time did not reveal any postoperative complications, and no further operative procedure was needed after the diagnosis laparoscopy and manual reduction.

2.11 Case 11

2.11.1 Clinical History

A 1-year 10-month-old girl with a weight of 12 kg came in after 5 hours of symptoms with bloody stool being the main clinical feature. There was no abdominal pain, vomiting, fever, abdominal distension, and palpable abdominal mass. Ultrasonographic assessment was then carried out in order to ascertain the etiology of presentation.

2.11.2 Diagnostic Evaluation

Target sign was demonstrated with the help of abdominal ultrasonography which proved ileocolic intussusception. It was observed that there was a lead point but its anatomical location and pathological nature were not specified any further. The typical ultrasound appearance was used to make the diagnosis and justify the implementation of a non-surgical reduction technique as the first line of treatment.

2.11.3 Management

Pneumatic reduction was the main treatment which the child had. There was no recurrent episode in the further clinical progression and surgical treatment was unnecessary. The patient thus continued to be placed under non-operative care with observation following reduction and no need to undergo repeat reduction or any other invasive treatment.

2.11.4 Follow-up and Outcome

The course following reduction was not complicated and the patient was in a hospital of 2 days. Imaging in the post treatment and further clinical follow up were done. No complications and recurrent episodes are reported within the period of observation, and no further aid was needed after the treatment of the ileocolic intussusception.

2.12 Case 12

2.12.1 Clinical History

A 18-day-old male infant of 11 months with a weight of 9 kg came to the clinic with a history of 14 hours of abdominal pain and bloody stool. No vomiting or fever. There was no abdominal distension or palpable abdominal mass. The baby was then subjected to ultrasonographic assessment to ascertain the suspected diagnosis of intussusception.

2.12.2 Diagnostic Evaluation

Ultrasonography showed a typical target sign and proved ileocolic intussusception. There was a lead point identified but its anatomical site and pathological character was not given. Further characterization was not possible and further management was made on the basis of the established sonographic diagnosis and clinical presentation.

2.12.3 Management

The main treatment that was applied to the infant was pneumatic reduction. The next clinical course did not include any recurrent episode, and there was no need to undergo operative treatment. The patient was thus treated non-operatively by observation after reduction and no further surgical/non-operative intervention was necessary.

2.12.4 Follow-up and Outcome

It took the infant 2 days in hospital after treatment. The imaging after the procedure and the clinical evaluation were conducted. No complications or recurrent intussusception were reported in the reported follow-up period and the child did not receive any additional therapeutic intervention after the pneumatic reduction.

2.13 Case 13

2.13.1 Clinical History

The patient is a 9-month-old male patient who has 16 hours of abdominal pain, vomiting, bloody stool, fever, abdominal distension and palpable abdominal mass. The baby showed the full spectrum of the presenting clinical features reported in this series and was then subjected to ultrasonographic evaluation.

2.13.2 Diagnostic Evaluation

A target sign was observed during abdominal ultrasonography to confirm ileocolic intussusception. It was observed that there was a lead point; though, the location of the lead point was not mentioned in detail, as well as the underlying cause and the pathological features. There was no further radiological or pathological characterization before the confirmed intussusception was further treated.

2.13.3 Management

The baby experienced pneumatic reduction, but later on, he experienced frequent intussusception. This was followed by the need to do operative management and a Ladd's procedure was done. The time between the decrease and recurrence, the specific sign that indicated the operative procedure, and the in-depth intraoperative results were not outlined in the available clinical data.

2.13.4 Follow-up and Outcome

Infant stayed 7 days in hospital after treatment. The imaging after the procedure and later clinical follow-up was carried out. There were no postoperative complications that were recorded in the period. The child went through the recorded hospital course until Ladd had completed the procedure without any further undesirable event that needed further operative intervention.

2.14 Case 14

2.14.1 Clinical History

The longest symptom period in the series is 7-month-old male infant with a 20-hour history of abdominal pain and bloody stool, with the highest weight, 5 kg. There were no vomiting, fever, abdominal distension and palpable abdominal mass. The baby was then examined with ultrasonography to check on the possibility of intussusception.

2.14.2 Diagnostic Evaluation

Ultrasonography of the abdomen showed a typical target sign and confirmed ileocolic intussusception. There was a lead point observed, but no further description of its anatomical location or pathology. The typical sonographic presentation formed the diagnosis and aided in the further treatment using the non-operative reduction strategy.

2.14.3 Management

The infant received pneumatic reduction as the main treatment option. The next clinical course did not report any recurrent case of intussusception, and no surgical intervention was needed. This patient was thus under non-operative management under clinical observation after reduction and no other therapeutic procedures were necessary.

2.14.4 Follow-up and Outcome

The infant had a normal course of post-reduction and was hospitalized 2 days after. Imaging and further clinical follow-up after treatment was done. No complications were observed, no recurrent episodes were reported over the period of observation and no further intervention was needed after the ileocolic intussusception was treated.

3. Comparative Summary of the Cases

The case series used consisted of 14 paediatric patients (12 boys and 2 girls. The most common type was ileocolic intussusception which was 13 cases and one child had colocolic intussusception. Most of the children underwent pneumatic reduction and two patients needed operative management. Four children acquired reported recurrence. Case 10 needed diagnostic laparoscopy and manual reduction following unsuccessful pneumatic reduction, and Case 13 needed a Ladds procedure following recurrence. No complications were reported in any patient and post-treatment imaging and further clinical follow-ups were carried out on all children.

Table 1 summarizes the clinical features, treatment and outcome of the 14 cases.

Table 1. Comparative Clinical, Diagnostic, Management and Follow-up Profile of the 14 Cases

Case	Age/Sex	Clinical Presentation	Ultrasound Type	Pneumatic Reduction	Recurrence	Surgical Intervention	Hospital Stay
1	9 months/M	Abdominal pain, bloody stool	Target sign / Ileocolic	Performed	None	Not required	2 days
2	2 years/M	Abdominal pain, bloody stool	Pseudokidney sign / Ileocolic	Performed	None	Not required	2 days
3	1 year/M	Abdominal pain, bloody stool	Target sign / Ileocolic	Performed	None	Not required	2 days
4	4 months/M	Bloody stool	Target sign / Ileocolic	Performed	Present	Not required	4 days
5	5 years/M	Abdominal pain, vomiting, bloody stool, fever	Target sign / Ileocolic	Performed	Present	Not required	3 days
6	8 months/M	Abdominal pain, bloody stool	Target sign / Ileocolic	Performed	None	Not required	2 days
7	2 years/F	Abdominal pain, vomiting, bloody stool, fever, distension, palpable mass	Target sign / Colocolic	Performed	Present	Not required	2 days
8	7 months/M	Bloody stool	Target sign / Ileocolic	Performed	None	Not required	2 days
9	1 year 2 months/M	Abdominal pain, bloody stool	Target sign / Ileocolic	Performed	None	Not required	2 days
10	4 years/M	Abdominal pain, vomiting, bloody stool, fever, distension, palpable mass	Target sign / Ileocolic	Unsuccessful	Not classified as recurrence	Diagnostic laparoscopy with manual reduction	8 days
11	1 year 10 months/F	Bloody stool	Target sign / Ileocolic	Performed	None	Not required	2 days
12	11	Abdominal	Target sign /	Performed	None	Not required	2 days

	months 18 days/M	pain, bloody stool	Ileocolic				
13	9 months/ M	Abdominal pain, vomiting, bloody stool, fever, distension, palpable mass	Target sign / Ileocolic	Performed	Present	Ladd's procedure	7 days
14	7 months/ M	Abdominal pain, bloody stool	Target sign / Ileocolic	Performed	None	Not required	2 days

4. DISCUSSION

The current case series had 14 paediatric patients ranging between 4 months and 5 years old with a significant male predominance of 12 males and 2 females. The duration of the symptoms was 5-20 hours. All patients had bloody stool and 11 patients had abdominal pain. Four patients had vomiting and fever, three had abdominal distension and palpable abdominal mass. This variation indicates the heterogeneity of the clinical manifestation of paediatric intussusception reported in the literature (Vo et al., 2020). In all children, the diagnosis was confirmed by ultrasonography. In 13 instances a target sign was seen and a single patient had a pseudokidney sign. The leading type of anatomy was ileocolic intussusception, which was present in 13 cases, and one child had colocolic intussusception. The results support the pivotal position of ultrasonography to confirm the diagnosis and the anatomical pattern of intussusception. Ultrasound data could also be used to assess the risk of recurrence after air-enema reduction (Zhang et al., 2022).

The main treatment method used in this series was pneumatic reduction which was successful in reducing 13 patients. The one child failed to respond to pneumatic reduction and later had to be handled operatively. There was recurrence of intussusception in four children after initial reduction, resulting in the need to observe and reassess the condition in children who have received non-operative treatment. Recurrence can occur early in paediatric intussusception and should be considered as a known complication that can be affected by multiple clinical and radiological issues (Yang et al., 2023). Two patients needed surgical intervention. A single child was subjected to diagnostic laparoscopy with manual reduction following a failed pneumatic reduction and another child was subjected to Ladd's procedure after repeated intussusception. These examples demonstrate that, despite the generally successful management of most children with non-operative reduction, surgical escalation is still necessary when the reduction is not successful, or where the resultant clinical course is indicative of the need to treat with surgery. Prognosticators of surgical need and more problematic illness have also been assessed in bigger paediatric groups (Wu et al., 2022). Such approaches have also been outlined in children suffering recurrent ileocolic intussusception (Zhang et al., 2020).

Hospital stay was between 2-8 days, and more children who had to be surgically operated had longer hospital stay. All the patients were exposed to post-treatment imaging and clinical follow-up, and no complications were reported in the observed clinical course. All in all, this evidence confirms the use of early diagnosis, timely ultrasonographic evaluation, timely pneumatic debriefing, close monitoring of the relapse and proper operative intervention where necessary. The main weaknesses of the series are the small sample size, single-centre design, and lack of clinical details on the lead-point features, recurrence time, and the procedural parameters, post-treatment imaging results, and duration of follow-up.

5. CONCLUSION

Pneumatic reduction was the primary non-operative mode of treating paediatric intussusception in this case series, which explains the significance of this technique in treating the condition. Repeat was seen in a sub group of children, highlighting the importance of close monitoring and follow up after reduction. Only in a few instances was surgical intervention necessary, as in one more child who failed to respond to pneumatic reduction and another who needed to be managed operatively after relapsing. The results provide insights into the significance of early clinical diagnosis, timely ultrasound imaging, timely reduction, and close follow-ups. Pneumatic reduction was adequate in the majority of the patients, but operative management was necessary in cases of failure of non-operative treatment, or in cases where the subsequent clinical course required surgery. Follow-up is thus essential to detect recurrent intussusception, evaluate the recovery following treatment and prompt escalation of care when necessary.

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