


Characteristic Description Of Patients With Obstructive Ileus Inpatient In Hospital IBN Sina Makassar 2023

Fhadila Srikastiwi¹, Sulfikar Rusdam², Abdul Mubdi³

¹Student Program Profession Doctor, Faculty Medicine, Muslim University of Indonesia, Makassar City, Indonesia,

²Departments Knowledge Surgery, Faculty of Medicine, Muslim University of Indonesia, Makassar City,

Indonesia, ³Department of Internal Medicine, Faculty of Medicine, Muslim University of Indonesia, Makassar City, Indonesia

Article Info	ABSTRACT
<p>Keywords: obstructive ileus, characteristic</p>	<p>Gastrointestinal tract disease is one of the causes of death in the world. Obstructive ileus is a condition that causes intestinal contents to be unable to pass through the intestinal lumen as a result of a blockage or mechanical obstruction in the intestinal lumen. This study reviews is to evaluate the characteristics of inpatient obstructive ileus patients at Ibnu Sina Hospital Makassar in 2023. This study uses a quantitative analysis research type with a cross-sectional approach by collect secondary data in the form of patient medical data records. The population in this study were all patients diagnosed with Obstructive Ileus disease at Ibnu Sina Hospital Makassar in 2023. By using the inclusion criteria, 30 people were determined to be samples. Based on the results of the study, it was concluded that the frequency of obstructive ileus sufferers based on age was highest in the age range of 45-59 years, the frequency of obstructive ileus sufferers based on gender was male, based on etiology, the most was adhesion, based on symptoms, the most was abdominal pain, based on support examinations, the most was plain abdominal photo 3 positions, based on the extent of obstruction, the most was partial obstruction, based on the location of obstruction, the most was low, based on management, the most was operative action, and based on outcome (patient condition after hospitalization) in obstructive ileus patients, the patient gone home in better condition. This evaluation can provide a picture of the characteristics of obstructive ileus patients to journal readers.</p>
<p>This is an open access article under the CC BY-NC license</p> 	<p>Corresponding Author: Fhadila Srikastiwi Student Program Profession Doctor, Faculty Medicine, Muslim University of Indonesia, Makassar City, Indonesia dhilafadhila802@gmail.com</p>

INTRODUCTION

Disease tract digestive is Wrong One disease reason death in world. There is Lots Which become reason disease These are food, unhealthy lifestyles, or environmental factors. WHO Also disclose that on year 2020 disease tract digestivus ranks among the top 10 causes of death in world. ¹

One of the diseases related to the digestive tract is ileus. By definition, ileus is an occlusion or paralysis of the intestine. which causes accumulation proximal to the site of obstruction. Disease T~~il~~ ileus is divided into two, namely obstructive ileus and functional ileus.

Ileus is caused by obstruction of passage (food passage) in the intestines due to obstruction of the intestinal lumen or due to the presence of disturbance peristaltic and abnormality vascularization in segment intestines and cause necrosis.²

Obstructive ileus can happen when lumen intestines clogged partially or completely and causes abdominal pain, vomiting, distension, or constipation. As for type ileus, namely ileus obstructive and ileus paralytic. One of the disorders that can occur in the digestive tract is ileus obstructive. Ileus obstruction is a condition emergency surgery which often occurs when the intestines cannot pass through the intestinal lumen because of blockage obstructive. Management which is effective depends on diagnosis early and accurate. Approach diagnostic which is comprehensive covers history.³

Ileus accounts for about 15% of the pain that can occur at any point in the digestive tract in the intestine. Symptoms vary based on degrees of obstructive intestines and most often due to intra-abdominal. There is a number of reasons from the occurrence of ileus obstructive among them is hernia incarcerated, ascariasis, adhesion or adhesions to the intestines, invagination, tumors or gallstones enter to ileus.⁴

METHOD

Study This uses a type of study analysis quantitative with a *cross-sectional* approach by collecting secondary data in the form of medical record data for patients diagnosed with ileus obstructive in RS Ibnu Sina Makassar in 2023, the data is used to know characteristic features of ileus patients obstructive. **Study** This is done in part record medical House Sick Ibnu Sina Makassar, South Sulawesi. **Study** This is carried out in the month of October 2024 until this research is completed in December 2024. The population in this study were all patients diagnosed with ileus disease obstructive at Ibnu Sina Hospital Makassar in 2017-2023. The sample used in this study is recorded data of medical patients which were diagnosed with ileus obstructive in House Sick Ibnu Sina Makassar 2023. **Technique taking sample** Which used in study This is total sampling, namely taking samples by taking all members of the sample population, namely patients diagnosed with ileus obstructive in House Sick Ibnu Sina Makassar year 2023. **Then researcher** to select data record medical in accordance with criteria inclusion and exclusion so that they meet the criteria that will be used sample. **Magnitude sample** Which used is all patient which diagnosed ileus obstructive at Ibnu Sina Hospital Makassar in 2017-2023 which meets criteria inclusion. **Variables dependent on research** This is patient with ileus obstruction. **Variable Independent in research** This is Age, Gender, Symptoms, Etiology, Types Obstruction, Location of Obstruction, Supporting Examination, Management, Status/condition patient return (*outcome*). **Secondary data** was obtained from the results of patient medical record data. **Record medical selected patients as sample**, done observation and recording direct to in questionnaire that has been provided. **In study** This used analysis univariate to describe characteristics in form of table. **Variables in insert to in table** with count amount and percentage for the data obtained.

RESULTS AND DISCUSSION

This study was conducted at Ibnu Sina Hospital, Makassar City, with implementation time

from October to December 2024. The purpose of this study was to determine the characteristics of Ileus Obstruction patients at Ibnu Sina Hospital in 2023. Based on secondary data obtained from the Medical Records of patients diagnosed with Ileus Obstruction, the following are the results of the data obtained.

Characteristics Obstructive Ileus Patients

Distribution of Characteristics Obstructive Ileus Patients Based on Age

Table 1. Characteristics Patient Obstructive Ileus Based on Age

Age	Frequency	Percentage
< 5	1	3.33%
5-9	0	0%
10-18	4	13.33%
19-44	8	26.67%
45-59	9	30%
≥60	8	26.67%
Total	30	100%

Based on table 1 above, it is found that the frequency of obstructive ileus sufferers based on age is in the age range <5 years, namely 1 patient (3.33%), in the age range of 5-9 years 0 patients (0%), in the age range of 10-18 years as many as 4 patients (13.33%), in the age range of 19-44 years as many as 8 patients (26.67%), in the age range of 45-59 years as many as 9 patients (30%), At the age of ≥60 years as many as 8 patients (26.67%). So the frequency of obstructive ileus based on age is the highest in the age range of 45-59 years, namely a frequency of 9 patients with a percentage (30%).

Distribution of Characteristics Obstructive Ileus Patients Based on Gender

Table 2. Characteristics Patient Obstructive Ileus By Gender

Gender	Frequency	Percentage
Woman	10	33.33%
Man	20	66.67%
Total	30	100%

Based on table 2 above, it is found that the frequency of obstructive ileus sufferers based on gender in women is 10 people (33.33%) and in men as many as 20 people (66.67%). So based on the frequency of obstructive ileus sufferers, the most are men as many as 20 people with a percentage of 66.67%.

Distribution of Characteristics Obstructive Ileus Patients Based on Etiology

Table 3. Characteristics Patient Obstructive Ileus Based on Etiology

Etiology	Frequency	Percentage
Hernia	1	3.33%
Adhesion	14	46.67%
Crohn's Disease	1	3.33%
Hirschsprung Disease	1	3.33%
Ascariasis	0	0%

Volvulus	1	3.33%
Tumor	11	36.67%
Gallstones	1	3.33%
Total	30	100%

Based on table 3, the following etiologies can be seen in the samples studied. There was 1 case of hernia (3.33%), 14 cases of adhesions (46.67%), Crohn's disease 1 case (3.33%), hirschprung disease 1 case (3.33%), ascariasis 0 cases (0%), volvulus 1 case (3.33%), tumor 11 cases (36.67%), gallstone 1 case (3.33%). The frequency of obstructive ileus based on the etiology was the highest adhesion as many as 14 cases with a percentage of 46.67% and followed by tumors as many as 11 cases with a percentage of 36.67%.

Distribution of Characteristics Obstructive Ileus Patients Based on Symptom Clinical

Table 4. Characteristics Patient Obstructive Ileus Based on Symptom Clinical

Clinical Symptoms	Frequency	Percentage
Abdominal pain	28	45.9%
Vomit	6	9.83%
Abdominal Distension	12	19.67%
Constipation	15	24.6%
Shock	0	0%
Total	61	100%

Based on table 4 above, from 30 cases studied, the distribution of symptoms can be found starting from abdominal pain as much as 28 times in a total of 30 samples (45.9%), vomiting 6 times (9.83%), abdominal distension 12 times (19.67%), constipation 15 times (24.6%), shock 0 cases (0%). The clinical symptoms that are often found are abdominal pain with a frequency of 28 times (45.9%) followed by symptoms of constipation with a frequency of 15 times (24.6%).

Distribution of Characteristics Obstructive Ileus Patients Based on Inspection Support

Table 5. Characteristics Patient Obstructive Ileus Based on Inspection Support

Supporting investigation	Frequency	Percentage
Plain abdominal X-ray 3 positions	21	56.76%
CT scan	7	18.91%
BNO	3	8.1%
Colon in loop	1	2.7%
USG	5	13.51%
Total	37	100%

Based on table 5 above, it can be seen in the supporting examination, the use of plain abdominal photos in 3 positions was 21 times in a total sample of 30 (56.75%), CT scan 7 times (18.91%), BNO 3 times (8.1%), colon in loop 1 (2.7%), USG Abdomen 5 times (13.51%). In this study, the examinations that were often used to support the diagnosis of obstructive ileus patients were plain abdominal photos with a frequency of 21 times (56.75%) followed by CT scans with a frequency of 7 times (18.91%).

Distribution of Characteristics Obstructive Ileus Patients Based on the Extent of Obstruction

Table 6. Characteristics Patient Obstructive Ileus Based on the Extent of Obstruction

Extent of Obstruction	Frequency	Percentage
Partial Obstruction	23	76.67%
Total Obstruction	7	23.33%
Total	30	100%

Based on table 6, it can be seen that the extent of partial obstruction was 23 cases (76.67%) while total obstruction was 7 cases (23.33%). The extent of obstruction with the most was partial obstruction with 23 cases with a percentage of 76.67%.

Distribution of Characteristics Obstructive Ileus Patients Based on the Location of Obstruction

Table 7. Characteristics Patient Obstructive Ileus Based on the location of the obstruction

Location of Obstruction	Frequency	Percentage
High position	13	43.33%
Low position	17	56.67%
Total	30	100%

Based on table 7, it can be seen that high obstructive ileus occurred in 13 cases (43.33%) while low obstructive ileus occurred in 17 cases (56.67%). The most common location of obstruction was low, which was 17 cases with a percentage of 56.67%.

Distribution of Characteristics Obstructive Ileus Patients Based on Management Type

Table 8. Characteristics Obstructive Ileus Patients Based on Type of Management

Action Type	Frequency	Percentage
Conservative	7	23.33%
Operative	23	76.67%
Total	30	100%

Based on table 8, it can be seen that the type of action is conservative in 7 patients in 30 samples (23.33%), while operative action is 23 patients (76.67%). The largest distribution of management in obstructive ileus patients is operative action, namely 23 cases with a percentage of 76.67%.

Distribution of Characteristics Obstructive Ileus Patients Based on Status/ condition go home patient (*Outcome*)

Table 9. Characteristics Obstructive Ileus Patients Based on *Outcome*

<i>Outcome</i>	Frequency	Percentage
Getting better	27	90%
References	1	3.33%
Die	2	6.67%
Total	30	100%

Based on the table 9 it can be seen that the distribution of obstructive ileus patients based on outcome was 27 patients (90%) discharged with improved condition, 1 patient

(3.33%) was referred, and 2 patients (6.67%) died. The largest distribution of *outcome* In patients with obstructive ileus, 27 patients went home in improved condition, or 90%.

Discussion

From the results study obtained that frequency obstructive ileus sufferer based on the most age is in the range age 45-59 years, namely the frequency of 9 patients with a percentage of (30%). These results in line with findings Sudarshan V, (2023) obtained that Intestinal obstruction occurs more frequently in the 30-60 year age group, whereas large bowel obstruction occurs more frequently in patients over 40 years of age.⁵ This result is also in line with Tebi's research. et al. (2024) found that most of the patients were in the 40-60 year category. Physiologically, obstructive ileus tends to occur more frequently in adulthood due to various factors. Decreased elasticity of the intestinal wall and weakening of the peristaltic muscles in the aging process make the intestines more susceptible to compression or obstruction. On the other hand, the prevalence of chronic diseases such as intestinal tumors, adhesions due to previous surgery, and the risk of blood vessel diseases such as atherosclerosis also increases in adulthood compared to children and adolescents.⁶

research results also show Where frequency obstructive ileus sufferer based on type the most sex that is man as many as 20 people (66.67). This result in line with study from Risqullah, AC (2021) who showed that sufferer The most obstructive ileus were men, as many as 110 people with a percentage of 63%.⁷ This is also in line with research from Zhou et al (2019) showed that of all patients examined (n 956), 587 (61.4%) were male and 369 (38.6%) were female. Male patients were more likely to have a history of smoking and drinking alcohol. Men are at higher risk of developing obstructive ileus due to several factors, including a tendency to have diseases associated with intestinal obstruction such as hernia, diverticulitis, or colon cancer. They also tend to engage in more strenuous or risky physical activities, which can lead to abdominal injury or trauma that causes intestinal obstruction.⁸

Then distribution data results obstructive ileus patient based on etiology the most that is adhesion as many as 14 cases (46.67%) and followed by tumors with 11 cases (36.67%). This in line with study Valarmati M., (2021) namely Patients with small bowel obstruction were found to be more numerous. Postoperative adhesions are the most common cause of obstructive ileus.⁹ These results are also in line with the research of Ayu Wira et al. (2024) Where results obtained approximately 60-90% of ileus cases is the cause of acute abdomen with the most common etiology being adhesions (54%). Adhesions can occur due to congenital or acquired factors, but most occur due to peritoneal injury, the most common cause of ileus. obstructive. Intra-abdominal adhesions are the most common cause in several reports, accounting for about 65% to 75% of cases, then about 10.9% are caused by tumors or herniation associated with abdominal wall trauma. Adhesions cause organs or structures in the abdominal cavity to stick to each other or to the abdominal wall, which can result in strangulation or entrapment of part of the intestine and interfere with the normal flow of intestinal contents, which ultimately causes obstruction. (Rifai, et al., 2024).¹⁰

From the results study obtained that the distribution data obstructive ileus patient based on symptom clinically obtained that Of the 30 existing cases, it was found distribution symptom start from the most that is symptom abdominal pain with frequency 28 times

(45.9%), followed by with symptom obstipation frequency 15 times (24.6%). This is in line From the research results from Serin, A., & The Simangunsong (2017) regarding " characteristics obstructive ileus patients who are hospitalized stay at the Deli Serdang Lubuk Pakam Regional Hospital period 2015-2016" was obtained Patients with obstructive ileus based on their main complaint, the most common is abdominal pain, as many as 33 cases (82.5%). According to the Gastroenterology textbook, it states that the classic symptom of obstructive ileus is abdominal pain. ¹¹ This is also in line with with research conducted by Sudarshan V, (2023) in his research analyzed the signs and symptoms showed that abdominal pain (100%) and bloating (100%) were the main symptoms seen in patients followed by increased bowel sounds (88%) and vomiting (86%). ⁵

From the results study obtained that the distribution data obstructive ileus patient based on inspection frequent support used For support diagnostic obstructive ileus sufferer that is plain abdominal radiographs with a frequency of 21 times (56.75%) followed by CT scans with a frequency of 7 times (18.91%). This is in line with Saurabh J. Tiwari's research et al (2017) stated that plain abdominal radiographs in an upright position help in diagnosing intestinal obstruction and distinguishing small bowel obstruction from large bowel obstruction. *Air fluid levels* can be seen in small bowel obstruction while only *gas shadows* which is seen in large bowel obstruction until the ileocecal valve is functioning properly. CT is used only when there is a diagnostic dilemma or to determine the specific cause of obstruction. ¹² This shows that plain abdominal radiographs are more often performed in patients with obstructive ileus. Plain abdominal radiographs in an upright position are an important diagnostic tool for diagnosing intestinal obstruction and its level of obstruction. The more distal the obstruction, the greater the accuracy found. ¹²

From the results study obtained that the distribution data obstructive ileus patient based on extent of obstruction The most common obstruction was partial obstruction, with 23 cases, with a percentage of 76.67%. This result in line with results study from Risqullah, AC (2021) received that the extent of obstruction in patients with obstructive ileus the most common is partial obstruction, as many as 118 people with a percentage of 68%. ⁷

From the results study obtained that the distribution data obstructive ileus patient based on location The most common obstructive ileus is low lying, which is 17 cases with a percentage of 56.67%. This is because the location of the obstruction is related to the etiology of 30 samples. The most common cause of obstructive ileus in this study was adhesions, followed by tumors with many cases in the colon (rectosigmoid), and some were caused by Hirschsprung's disease and volvulus which were also found in low lying. These results in line with research by Ayu Wira et al. (2024) who obtained that the most common location of obstruction is low, namely 17 cases with a percentage of (71%) with the location of obstruction related to the etiology of 24 samples. ¹⁰

From the results study It was found that the largest distribution of management in patients with obstructive ileus was operative action, namely 23 cases with a percentage of 76.67%. This is in line with research obtained by Tebi et al. (2024) Where The results show that operative management is more often performed on patients with obstructive ileus. Management of obstructive ileus is directed at correcting physiological disorders, resting the

intestines, decompression and also eliminating the source of obstruction. Nonoperative management can successful in 40% to 70% of clinically stable patients with acute intestinal obstruction and is associated with a shorter initial hospital stay. However, recurrence rates are higher in patients treated nonoperatively because the cause of obstruction (adhesions) is not addressed. ⁶ Research result this is also in line with research result from Serin, A., & The Simangunsong (2017) found that the most common management of obstructive ileus patients was operative measures, as many as 39 cases (97.5%). ¹¹

And from results study This is the largest distribution of *outcomes* In patients with obstructive ileus, 27 patients went home in improved condition, or 90%. From the research results, it has been shown that almost all samples have a good prognosis, but there is 1 referral case, and also 2 cases of death due to congenital diseases and complications from obstructive ileus that have been suffered by the patient for a long time. This in line with Rijal et al.'s research (2024) found that the distribution of obstructive ileus patients based on outcome was that 27 patients (87.2%) were discharged in improved condition, 2 patients (6.4%) were referred, and 1 patient (3.2%) had not yet been discharged. healed and died. ¹³ According to journal study *A Study Of Surgical Management Of Intestinal Obstruction* In cases of ileus obstruction, death more high in individuals with bowel strangulation /perforation, those who present more than 72 hours and in those with pre-existing associated diseases and in the elderly. ⁵

CONCLUSION

Based on the research that has been conducted, it can be concluded that the frequency of obstructive ileus sufferers based on age is highest in the age range of 45-59 years, namely a frequency of 9 patients with a percentage of (30%), The frequency of obstructive ileus sufferers with the highest gender is male, 20 people (66.67 %), based on the most common etiology, adhesions. Adhesions occur in 14 cases (46.67 %). Distribution symptom which often found that is painful stomach with frequency 28 times (45.9%). The examination that is often used to support the diagnosis of obstructive ileus patients is a plain abdominal photo in 3 positions with a frequency of 21 times (56.75 %). The distribution of the area of obstruction in obstructive ileus patients is the most partial obstruction as many as 2-3 cases (76.67 %). The distribution of the most obstruction location is low, namely 17 cases with a percentage (56.67 %). The largest distribution of management in obstructive ileus patients is operative action as many as 23 patients (76.67 %). The largest distribution of *outcome* In patients with obstructive ileus, 27 patients went home in improved condition, or 90%.

REFERENCES

1. Tsadik, D. *Et Al*. Karakteristik Ileus Obstruktif Di Rsup Dr. WahidinSudirohusodo Makassar Tahun 2018. *Int. J. Hypertens.* **1**, 1–171 (2020).
2. Pajajaran, M. U., Roekmantara, T. & Wurarah, J. K. Angka Kejadian, Karakteristik Dan Gambaran Radiologi Foto Polos Abdomen Pada Pasien Ileus Obstruktif Di Rumah Sakit Al-Ihsan Bandung Tahun 2014- 2015. *Pros. Pendidik. Dr.* **2**, 638–644 (2016).
3. MohiJ.K,KajalS,SinghT,SinghJ,KaurN.2017.Roleofimaging in evaluation of intestinal

- obstruction. *Int J Med Res Rev*, 5(06):593-603.
4. Wahyudi, A., Siswandi, A., Purwaningrum, R. & Dewi, B. C. Obstructive Ileus Incidence Rate In Examination Of Bno 3 Position In Abdul MoeloekHospital. *Jiksh* **11**, 145–151 (2020).
 5. Sudarshan, V., Husain, J., Choudhary, K. S., Kumar, P. (2023). A study of surgical management of intestinal obstruction. *International Surgery Journal*. 10(5):866-870.
 6. Tebi, T., Gani, A. B., Widjoyo, W., & Juhamran, M. R. (2024). Karakteristik Penderita Ileus Obstruksi. *Jurnal Pendidikan Tambusai*, 8(1), 10976-11001. <https://doi.org/10.31004/jptam.v8i1.14032>
 7. Risqullah, AC. (2021). Karakteristik Klinis Penderita Ileus Obstruktif Di Rsup Dr. Wahidin Sudirohusodo Periode 1 Juli 2018 – 30 Juni 2021. Fakultas Kedokteran Universitas Hasanuddin
 8. Zhou C, Wu XR, Liu XH, et al. Male gender is associated with an increased risk of anastomotic leak in rectal cancer patients after total mesorectal excision. *Gastroenterol Rep (Oxf)*. 2018;6(2):137-143. doi:10.1093/gastro/gox039
 9. Valarmathi, M. (2021). Study of acute intestinal obstruction management and its outcome. *International Surgery Journal*, 8(12), 3535-3540. 10.18203/2349-2902.isj20214741
 10. Wira Saputri Rifai A, Rasyid M, Melinda M, Beru Gani A. Karakteristik Pasien Ileus Obstruktif di RSUD Haji Makassar Tahun 2021-2022. *Jurnal Pendidikan Tambusai*. 2019;8.
 11. Serin, A., & Simangunsong, B. (2017). Karakteristik Penderita Ileus Obstruksi Yang Rawat Inap Di RSUD Deli Serdang Lubuk Pakam Periode 2015 -2016. *Jurnal Kedokteran Methodist*. 10(1).
 12. Tiwari SJ, Mulmule R, Bijwe VN. A clinical study of acute intestinal obstruction in adults-based on etiology, severity indicators and surgical outcome. *Int J Res Med Sci*. 2017;5(8):3688.
 13. Muh Muslih Rijal A, Beru Gani A, Sandy Tulak P, Adnan E, Erida B. 2024. Karakteristik Pasien Ileus Obstruksi Di Rumah Sakit Ibnu Sina Makassar Tahun 2019-2021. Fakultas Kedokteran Universitas Muslim Indonesia. *Jurnal Kesehatan Masyarakat*.