



Case Series

A common but unknown disease; A case series study

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ABSTRACT

Background: The present study is conducted to introduce a common disease of abdominal wall which has received less attention in scientific resources. In traditional medicine sources Some scholars believe that this condition occurs due to the movement of the abdominal muscle near the umbilicus or nave laterally movement of nave.

Design: A case series study.

Method: the study did not receive any funding. This study was a case series study. The study population was all patients who following repeated hospital visits did not improve, and for their last try, they visited a traditional clinic, and were diagnosed with umbilical hernia during a period of 5 months. Data were collected using demographic information questionnaire, and a complete health history taking.

Results: nave sliding is an abdominal wall defect and gastrointestinal and psychological problems are listed as the most prominent sign and symptoms. higher body mass index and presence of a first-degree relative with the same problem could be a predictor factor.

Conclusion: Nave sliding is a common disease that there are a few scientific literatures about it and needs more attention from clinicians to avoid false diagnoses and requires more academic research to clarify any ambiguous side about it to promote the treatment process in a more scientific and approved methods.

1. Introduction

The abdomen is covered externally with abdominal skin, muscles, parietal peritoneum, and visceral peritoneum, respectively. Abdominal wall integrity or function can be compromised due to different reasons. There is a common, but unknown discomfort of abdominal wall that is not mentioned in scientific references and it is characterized as being an acquired defect, and compare to other types of abdominal wall defects, it has received little attention [1–3]. This condition is widely spread in many countries, especially in the Middle East, and this condition is known among all people as a drop in the abdomen or nave. In many Arab countries, this situation is described according to the dialect used (the fall of the navel or Sliding navel), but there is no scientific or medical term to describe it [1]. According to evidence, Children and women are the target population for this unpleasant condition [4]. The main symptoms of this disease are as follows: Indigestion or difficulty in digestion, general weakness in the body, flatulence in the stomach and abdomen after meals, aching and vague pain in and around the navel area and dry mouth. The research on the patients with this unpleasant condition, shows that there is a common pathological factor in 95% of

the cases, including increased intra-abdominal pressure in cases of weightlifting, pregnancy, obesity, fear and extreme panic and excessive physical movements [1,2,5,6]. The evidence shows that those with this disease have first- and second-degree relatives with the same condition, and this confirms the existence of a similar genetic factor between these patients [1]. The diagnosis of this disease is done through the patient's history combined with a physical examination [5,7]. Unfortunately, imaging techniques are not helpful in this case and the patients are not diagnosed at clinical sittings, but related sign and symptoms result in discomfort in patient [4] and it is necessary to take some measures to provide patient's comfort.

1.1. Background

There is lack of attention regarding treatment for mentioned condition in scientific literatures except some Sources of traditional medicine such as Al-Qanun fit-Tibb Ibn Sina [8], Al-Kitab al-Mansur [6], and Darood Akseer Azam [5,7], at which the umbilical hernia is mentioned as "Suqut Serrah". According to traditional medicine sources, this disease is very common among adults and women are more affected than men.

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The recommended treatment for umbilical hernia includes “hands-on” techniques, and dietary measures. Through dietary category, in addition to some special mixtures of ginger, honey, pepper, celery, and cinnamon the patients are recommended to avoid bloating foods. Traditional healers have recommended different methods to treat this condition. Sometimes one of these methods solves the problem, but sometimes several methods are used together. Some of the most mentioned methods include abdominal oil massage, cupping therapy, tie a bag of hot water or an onion-sized object such as, a bag of wheat or salt, with a scarf on the navel for 1 h, squeezing and feel the abdominal beat until it returns to the navel, hands-on techniques to stretching abdominal muscles, and taking a nerve that passes under the armpit with two index fingers and thumbs and applying intense pressure to the extent that the patient goes unconscious due to the severity of the pain [3,8–10].

2. Method

2.1. Trial design

Has been reported in line with the PROCESS 2020 (www.processguideline.com) criteria [11]. The study has been registered on clinicaltrials.gov with the following registration number: ClinicalTrials.gov Identifier: NCT04998929.

The study also has been registered in www.researchregistry.com with unique identifying number: researchregistry7058.

2.2. Study design

A case series prospective single center study.

2.3. Settings and time-frames

The study was a case series study of 20 patients who following repeated hospital visits did not improve, and for their last try, they visited a traditional clinic, and were diagnosed with navel sliding; Diagnosis was based on signs and symptoms and to confirm it, There are two traditional diagnostic tests. In the first method the patients were asked to Lean both hands somewhere, if one leg placed behind the other, and if they straighten their legs, the arms are back and forth the test was positive (Fig. 1), in second way of diagnose, we had the patients in supine position without any thing under the head; then the examiner stretched out both thumbs through a passive movement in the midline of the patient, if the thumbs were at the same line the test was considered negative (Fig. 2), otherwise if the thumbs were front and back the test was positive (Fig. 3), and the patient went undergo one of the traditional techniques of treatment including, (a) cupping therapy, (b) Backstroke for young people, (c) Sitting on all fours while the other person holds both knees firmly with the hands, the patient is asked to bend at the back so that the abdominal muscles are stretched, (d) taking a nerve that passes under the armpit with two index fingers and thumbs and applying intense pressure to the extent that the patient goes unconscious due to the severity of the pain, (e) Hanging the patient from the horizontal bar and stretching the abdominal muscles, (f) Tie an onion-sized object such as, a bag of wheat or salt, with a scarf on the navel for 1 h, (g) taking the gum of mountain pistachio tree which is the same as turpentine and halve a walnut and fill it with raw turpentine and put it inside the navel for 72 h, and then move it in the umbilical region by twisting hand movements, (h) cupping therapy. If any of the mentioned techniques was not successful the traditional healer used other techniques until the patients recovered with one of the aforementioned techniques.

2.4. Recruitment

The samples were enrolled in the study from August 2020 to December 2020, during a 5-month period.

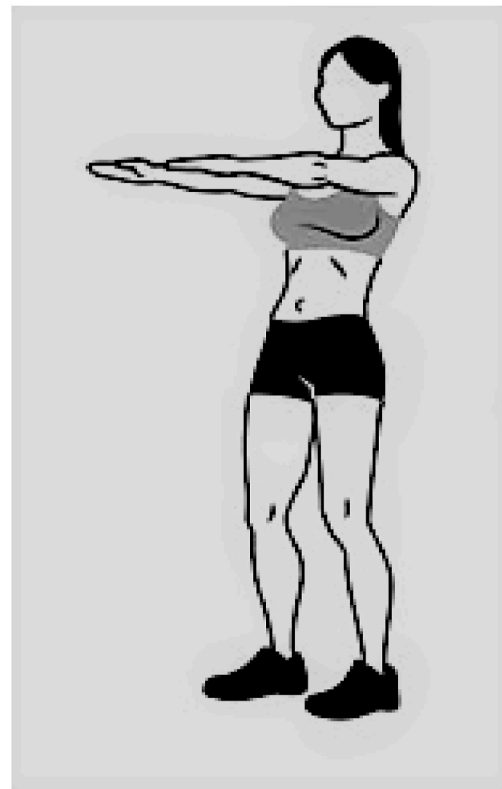


Fig. 1. Traditional diagnostic test of nave sliding.



Fig. 2. Negative result of test.

2.5. Data collection

Data were collected using demographic information questionnaire, and a complete health history taking. A standard form was used to collect personal and clinical data, including age, gender, weight and length, body mass index (BMI), onset of the disease, disease duration, recurrence of the disease, cause, signs and symptoms of, number of failed hospital visits and all medical procedures that were done for the patients, including lab test results, imaging, failed medical interventions



Fig. 3. Positive result of test.

that the patients have received once they suspected the problem with their health, and differential diagnosis.

2.6. Ethical considerations

In the present study, researchers observed ethical considerations including confidentiality of sample information, obtaining permission from relevant authorities, obtaining written permission from the Research Ethics Committee, explaining the purpose and nature of research for all participants, obtaining informed written consent, and all samples were free to quit the study once they were reluctant to participate. The consent process is available in Persian. All of the consents are documented, and the patients were given a copy of the consent form.

3. Results

3.1. Baseline data

Female were accounted for 60% of all participants. 45% of participant aged between 20 and 30 years old, and 45% were over 30 years of age. In term of body mass index which according to literatures is an important factor for discussed discomfort, 65% of patients were in the normal range of BMI, and 30% were over normal range, and only 5% of all were underweight.

3.2. Outcomes

According to Table 1, it could be stated that from all of which, 45% of cases were faced the problem following lifting the heavy object, and mentally influenced cases by stress, bad news and sudden fear were accounted for 40% of causes. forty five percent of patients declared that one of their family members has experienced the same problem in recent years. in term of differential diagnosis, 35% of patients after being referred to the hospital, they were diagnosed as umbilical herniation, 25% as enteritis, 20% as psychotic disorder. There were no abnormal findings in laboratory results of participants (Table 1).

4. Discussion

In traditional medicine sources, this disease has been mentioned as a common condition, which has been reported more in women and children, and there are several complaints in the history of infected people

[12,13]. There are different opinions about it. Some scholars believe that the current condition occurs due to the movement of the abdominal muscle near the umbilicus [12]. According to others, in this condition, the umbilicus moves from its place and leans around. The umbilicus is connected to the digestive system; Therefore, any imbalance in the umbilicus leads to acidity, indigestion, constipation, difficulty moving, and sudden weight changes [14]. We found that gastrointestinal problems such as losing appetite, defecation related problems, sudden weight changes, vomiting, and extreme thirst was the most observed sign and symptoms reported by patients. It is important to be mentioned that majority of patients reported some psychological problems such as anorexia, anxiety, depression, and decreased daily activity, that is why some of the patients were diagnosed as psychotic cases in the hospital. The symptoms of this condition are strongly confused with a series of serious medical diseases. Therefore, it is important that differentiate among them to choose the best method of treatment. Some of these medical conditions in present study included: umbilical herniation, enteritis, irritable bowel syndrome (IBS), Psychotic disorder, urinary bladder infection, hypothyroidism, and peptic ulcer, but none of the medical treatments prescribed by the primary health care provider was successful in healing process, and finally after various failed prescribed medicines, they did their last try be going to the traditional medicine clinic. In the present study, various traditional methods were used to solve the problem; Pulling arm, putting heavy object over belly button, mountain pistachio, cupping therapy, and Backstroke were among the most successful methods of treatment respectively. higher patient's body mass index (30%) was more than lower patient's body mass index and it could be said that overweight patients may have an increased chance to face the problem. Albayati declared that cases with this problem have first- and second-degree relatives with the same condition, and this may show the existence of a similar genetic factor between these patients which is in line with the findings of present study 45% of participants had a first-degree relative with the same condition [1]. Not only have this study discovered a new solution to such similar diseases that have been missed in scientific literatures, but also it has paved the way for further case-series studies to achieve more relevant findings that can provide the adequate data to go through more scientific methods and link between pre-existing knowledge and new findings.

5. Conclusion

Nave sliding is a common disease that there are a few scientific literatures about it and needs more attention from clinicians to avoid false diagnoses and putting the patients under unnecessary treatment that could easily put them under the risk of various side effects of chemical medicines in long term. We wholeheartedly recommend more research to clarify any ambiguous side about this disease to promote the treatment process in a more scientific and approved methods.

Institutional review board statement

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by Ethics Committee of National Research Ethics Committee of komar university of sciences and technology. (protocol code IQ.KUST.REC.2021.149 and 9/7/2021).

Informed consent statement

Informed consent was obtained from all subjects involved in the study, written informed consent has been obtained from the patient(s) to publish this paper" if applicable.

Data availability statement

The data presented in this study are available on request from the corresponding author. The data are not publicly available due to

Table 1
History of diagnosed patients with nave sliding.

N	Gender	Age	BMI	Cause	Sign and symptom	Family member with the same problem	Treatment	Lab test results	Differential diagnosis
1	Male	26	29.7	Lifting heavy thing	Sadness, Insomnia, Anorexia, Abdominal pain, Decrease daily activity, Dry mouth	None	Pulling arm	Normal	Enteritis
2	Female	45	24.4	Sudden fear	Anxiety, Weakness, Anorexia, Insomnia, Weight loss, Palpitation, Pale skin, Decrease daily activity	Yes, mother	Pulling arm	Normal	Psychotic disorder
3	Female	17	19.4	Lifting heavy things	Anorexia, Weight loss, Dry mouth, Pale skin, Decrease daily activity, Depression, Anxiety	None	Putting heavy object over belly button	Normal	Peptic ulcer
4	Female	23	19.9	Sudden fear	Anorexia, Weight loss, Dry mouth, Pale skin, Decrease daily activity, Depression, Anxiety, Nausea, Extreme thirst, weakness	None	Pulling arm	Normal	Urinary bladder infection
5	Female	44	19.8	Sudden fear	Anorexia, Weight loss, Dry mouth, Pale skin, Decrease daily activity, Anxiety, Nausea, Extreme thirst	Yes, mother	Pulling arm	Normal	Psychotic disorder
6	Female	20	20.7	Prolonged stress	Diarrhea, Vomiting, Anorexia, weakness	Yes, sister	Putting heavy object over belly button	Normal	Psychotic disorder
7	Male	23	23.3	Lifting heavy thing	Anorexia, Nausea, Weakness, Pale skin, Diarrhea, Belly button hardness	None	Backstroke	Normal	Psychotic disorder
8	Male	39	28.7	Lifting heavy thing	Weakness, Anorexia, Abdominal pain, Decrease daily activity	None	cupping therapy	Normal	Enteritis
9	Female	29	25.2	Bad news	Anorexia, Weakness, Difficulty in walking, abdominal pain, Pale skin, Insomnia	Yes, sister	Pulling arm	Normal	hypothyroidism
10	Male	34	22.5	Jumping	Anorexia, Weakness, Difficulty in walking, anxiety, Pale skin, Insomnia	Yes, father	Putting heavy object over belly button	Normal	IBS
11	Male	36	24	Lifting heavy thing	Dry mouth, Increase of tea and water intake, Anorexia, Tiredness, Constipation, diarrhea	None	Putting heavy object over belly button	Normal	Enteritis
12	female	19	27.3	Jumping	Pain around belly button, Anorexia, Anxiety, Palpitation, Weakness, Difficulty in walking	Yes, mother	mountain pistachio	Normal	Umbilical herniation
13	Male	21	23.5	Lifting heavy thing	Abdominal pain, Anorexia, back pain	Yes, brother	Backstroke	Normal	Umbilical herniation
14	Female	25	23.4	Lifting heavy thing	Anorexia, Leg pain, Dry mouth, weakness, Excessive thirst	None	cupping therapy	Normal	Umbilical herniation
15	Female	23	19.7	Sudden fear	Anorexia, loose stool, dehydrated mouth, paleness, rapid beating around the navel and trembling of the knees	None	mountain pistachio	Normal	Umbilical herniation
16	Female	29	20.8	Lifting heavy thing	constipation, difficulty moving, and sudden weight gain. loss of appetite, severe pain with unclear location	None	cupping therapy	Normal	Enteritis
17	Male	40	23.5	Jumping	sudden weight gain. loss of appetite, severe pain with unclear location, Excessive thirst and severe pain following drinking water, Lack of pain relief with painkillers	Yes, brother	mountain pistachio	Normal	Umbilical herniation
18	Male	61	18.3	Lifting heavy thing	Anorexia, severe to moderate weakness in the legs, umbilical cord beating, weight loss, indigestion, Excessive thirst	None	Pulling arm	Normal	Umbilical herniation
19	Female	56	28.4	Bad news	Anorexia, Dizziness, nausea, lethargy and general weakness, severe to moderate weakness in the legs, umbilical cord beating, weight loss, indigestion	None	taking nerve	Normal	Umbilical herniation
20	Female	34	26.5	Prolonged stress	loss of appetite, severe pain with unclear location, indigestion, constipation, difficulty moving, and sudden weight gain	Yes, brother	mountain pistachio	Normal	Enteritis

privacy.

Provenance and peer review

Not commissioned, externally peer-reviewed.

Ethical approval

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by Ethics Committee of National Research Ethics Committee of komar university of sciences and technology. (protocol code IQ.KUST.REC.2021.149 and July 9, 2021).

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Author contribution

Conceptualization; software, validation.; formal analysis.; investigation; resources; data curation.; writing—original draft preparation, writing—review and editing, visualization, by YR; methodology by BSO; recruitment by SR.

Registration of research studies

1. Name of the registry: [Clinicaltrials.gov](https://clinicaltrials.gov)
2. Unique identifying number or registration ID: NCT04998929

3. Hyperlink to your specific registration (must be publicly accessible and will be checked): <https://register.clinicaltrials.gov/prs/app/activation/ReleaseProtocol?uid=U0005EW3&ts=58&sid=S000B7RZ&cx=irlujm>

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Declaration of competing interest

The authors declare no conflict of interest.

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Not Applicable.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.amsu.2021.102739>.

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