



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 7 Issue: 1 Month of publication: January 2019

DOI: <http://doi.org/10.22214/ijraset.2019.1070>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

A Novel Treatment for Constipation by Sesame Seeds

Dr: Hisham Mohamed Osman Ibrahim¹

¹Biochemistry, College of Medical laboratory Sciences, Jouf University

Abstract: *The constipation is a condition that known as unable of patient to discharge the stool from the body. Moreover, there are many reasons for this is condition such as modern life style witch increase the pressure on individual to obtained wide range of needs which incased day by day. Moreover, low physical activates for prolonged time this is condition affecting many patients worldwide and led to reduced bowel movements, moreover, taking fast meals (sandwiches) most of it contains harden food. Consequently, all previous mentioned factors and other can resulting in more clasp of feces, failed or lengthy attempts go to the bathroom and a sense of incomplete emptying (evacuation). The objective: To determine the effect positive effects of sesame seeds constipation patients. The results: Our study revealed that taking Sesame seeds (mixed with some sugar) two times per day for three weeks lead to unbelievable results in evacuation without any problem and this might promising treatment for all patients suffering from chronic constipation. I believed that low water intake play a key role in constipation because most metabolism and enzymes needs enough water if there is no enough water most metabolism don't work properly lead to reduced food hydrolysis by right way and not absorb correctly and stack in bowel lead to many problems.*

Keywords: *treatment, chronic constipation and sesame seeds.*

I. INTRODUCTION

Constipation is affecting millions of peoples in worldwide which is define as gastrointestinal tract problem, which can result in the low stools, difficult stool passage with pain and stiffness. Moreover, this is disease in some cases can led to closure of the intestine, which may even require surgery [1].

There are many factory for constipation such as low fluid intake, aging, low physical activities, taking medication and high stress life and genetic factors.

The feces, is considered as a solid bodily waste discharged from the large intestine during defecation it is composed of highly percentage of water and the remnant composed of dead cells, bacteria cells, mucus, indigestible food matter, proteins & cholesterols. In the meantime, it is normally removed from the body one or two times each day [2].

Sesames (*Sesamum indicum*, L., Family: *Pedaliaceae*) was used in nutrition from long past time, many studies confirmed that Sesames is congaing a high nutritional values, in a study done by Martinchik (2011) confirmed that Sesame seeds contain up to 55% oil and 20% protein, moreover, this is study mentioned sesames is considered rich with vitamins and fatty acids [3].Also Sesame is known as highly antioxidant which has grate effects in fatty acids oxidation, synthesis and fatty acids metabolism [4].

Moreover, many studies confirmed the positive effects of sesame in hypotension treatment [5], [6]. In the meantime, sesame oil was shown appositve effects in lowering the cardiac problem and improve the health of cardiac patents [7], [8], [9]. On the other hand, in one study done by Liu *et al.* (2015) found the significant effects in chronic kidney disease of rats when treated with sesame oil which lead to decrease the level of blood urea nitrogen and creatinine [8].

II. MATERIALS AND METHODS

The study done in two groups each of seven constipation patients, Consequence, those patient were diagnostic with this disease before at least two years, those patients suffering from difficult stool passage, blood in feces and Pain in stool passage. Then, the patients are assigned in this this study. One the other hand, the patients are divided into two groups each of seven patients. The first group is control group and the second group is an experimental group received sesame seeds (500 gram) only as treatment for constipation two time per day for 21 days. In the meantime, the sesame seeds weight (500 gram) mixed with some sugar as shown in figure 4. Moreover, the patinas agree to take sesame seeds in this study to evaluate the effects of sesame seeds in constipation for three weeks.

A. Statistical Analysis

Mean values of blood parameters and body weights were analyzed by student *t*- test using computer package program (PASW statistics 20).

B. The Results

The parameters of duration of emptying bowel, bleeding with feces, difficulty of defecation or discharge and uncomfortable felling in control and experimental groups taking sesame seeds for 21 days were shown in Table 1 and Figure 1, 2 and 3.

Table 1. Mean values of duration of emptying bowel, bleeding with feces, difficulty of defecation or discharge and uncomfortable felling in control and experimental groups taking sesame seeds for 21 days (mean ± SD)

Parameters	Control Mean ± SD	Experimental Mean ± SD
Duration of emptying bowel/week	1.29±0.488	5.14±1.67**
Bleeding with feces	1.14±0.378	1.8±0.38**
Difficulty of defecation or discharge	1.4±0.4	1.86±0.37**
Uncomfortable felling after evacuation	100% Yes	100% No**

*= significant (0.05), ** = highly significant (0.001)

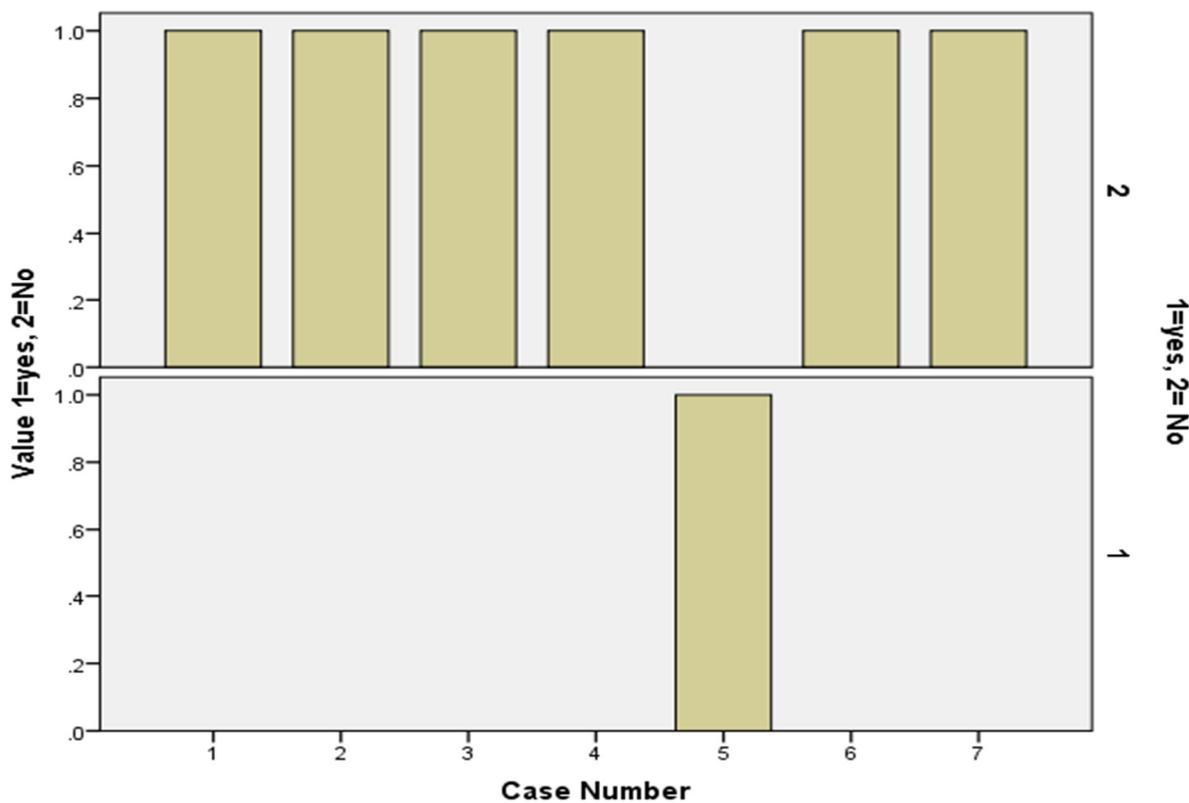


Figure 1: Bleeding in stool in Control group (2) and experimental group (1)

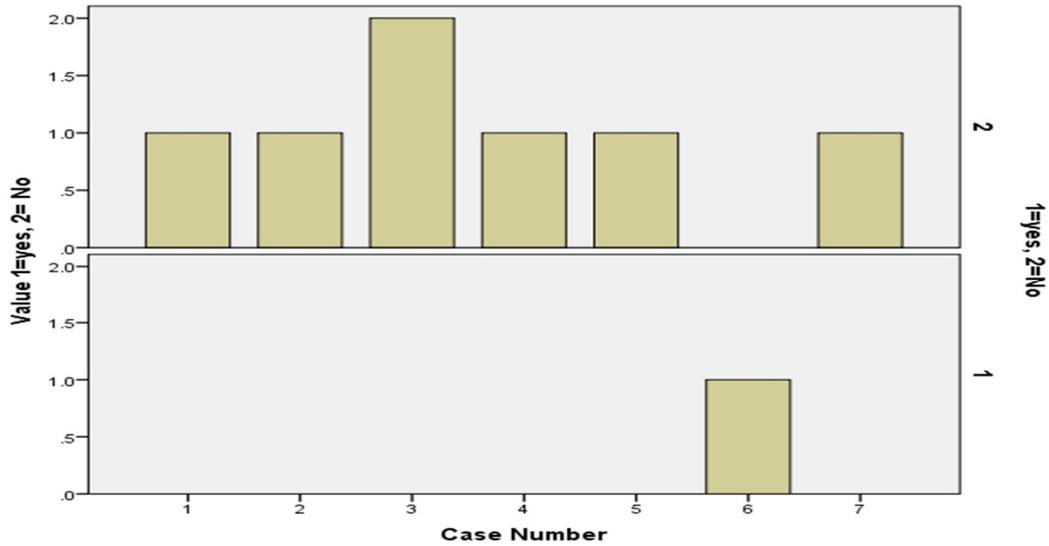


Figure 2: Difficult in evacuation in Control group (2) and experimental group (1)

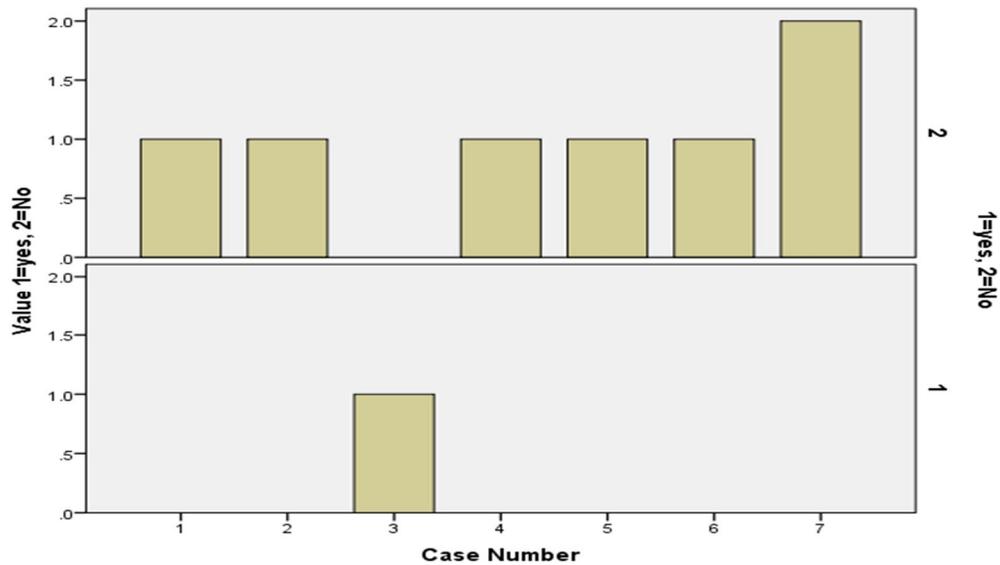


Figure 3: unfordable feeling after evacuation in Control group (2) and experimental group (1)



Figure 4: The Sesame seeds

A. Discussion

Chronic constipation characterized by difficulty in the evacuation, decreased the number of stool per week, with uncomfortable feeling during the evacuation, excessive squeeze, with unable to complete evacuation.

However, this study found the positive effects of sesame seeds in treat the symptoms of constipation, such as improving the evacuation time per week, relieve the difficulty during evacuation, reduced the pain during evacuation, all these parameters are observed during the follow-up period. On the other hand, the sesame seeds don't report before for the treatment of the constipation. Therefore, these positive effect of sesame seeds might consider a novel effective treatment for constipation. Moreover, this is might due to the central role of sesame seeds in attracting the water to the intestinal tract. In the meantime, the water is playing a key role in discharge of stool because it works as lubrication (lubricator factor) during discharge. In the meantime, previous study confirmed the function of water intake for constipation patients who consumed two liters of water show improvement in the evacuation frequency and a decrease in the use of laxatives [10]. Also, sesame seeds might include a considerable amount of fibers [11], and the fiber might be facilitating the discharge process. In this context, the high contains of fibers in diet is recommend by most physicians round the world because fibers are considered as healthy practice, in this is context, there are many studies recommended to take fiber to treatment constipation [11], [12].

III. CONCLUSION

In general, the study revealed that sesame seeds help in relieving symptoms of constipation such as hard pass of the stool and abdominal pain. However, this is need further studies.

IV. RECOMMENDATION

The study recommends the patients of constipation to take sesame seed as an effective treatment without any side effects because it is naturally hundred percent.

V. ACKNOWLEDGEMENT

The author would thank any person participated in this study especially the patients.

REFERENCES

- [1] M. Forootan, N. Bagheri and M. Darvishi. Chronic constipation: A review of literature. "Medicine Journal". 2018, 97 (20):10631.
- [2] C. Rose, A. Parker, B. Jefferson, E. Cartmell. The Characterization of Feces and Urine: A Review of the Literature to Inform Advanced Treatment Technology. "Crit Rev Environ Sci Technol". 2015, 2;45(17):1827-1879.
- [3] A. Martinchik. Nutritional value of sesame seeds. "Vopr Pitan", 2011, 80(3):41
- [4] Namiki M. Nutraceutical functions of sesame: a review. "Crit Rev Food Sci Nutr." 2007, 47(7):651-73.
- [5] S. Devarajan, R. Singh, B. Chatterjee, B. Zhang, A. Ali. A blend of sesame oil and rice bran oil lowers blood pressure and improves the lipid profile in mild-to-moderate hypertensive patients. "J Clin Lipidol". 2016,10(2):339-49.
- [6] D. Sankar, M. Rao, G. Sambandam, K. Pugalendi. A pilot study of open label sesame oil in hypertensive diabetics. "J Med Food". 2006,9(3):408-12.
- [7] C. Liu and M. Liu. Daily sesame oil supplementation attenuates local renin-angiotensin system via inhibiting MAPK activation and oxidative stress in cardiac hypertrophy. "J Nutr Biochem." 2017, 42:108-116.
- [8] C. Liu, S. Chien, D. Hsu, S. Periasamy, M. Liu. Curative effect of sesame oil in a rat model of chronic kidney disease. "Nephrology (Carlton)." 2015, 20(12):922-30
- [9] C. Liu, S. Periasamy, C. Chang, F. Mo, M. Liu. Sesame oil therapeutically ameliorates cardiac hypertrophy by regulating hypokalemia in hypertensive rats. "JPEN J Parenter Enteral Nutr." 2014,38(6):750-7.
- [10] N. Sabine, T. Soraia, C. Francine. Water and fluid intake in the prevention and treatment of functional constipation in children and adolescents: is there evidence. "J Pediatr". 2017, 93(4):320-327.
- [11] M. Elleuch, D. Bedigian, B. Maazoun, S. Besbes, C. Blecker, H. Attia. Improving halva quality with dietary fibers of sesame seed coats and date pulp, enriched with emulsifier. "Food Chem." 2014, 15;145:765-71.
- [12] P. Piccoli, D. Eifer, E. Daniel. Use of fibers in childhood constipation treatment: systematic review with meta-analysis. "J Pediatr ".2018, 94(5):460-470.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)