

An Overview on Constipation and Liquid Paraffin For its Treatment

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Abstract:

Constipation is a common health concern leading to great discomfort to the individuals and affects their quality of life. It may be considered as highly prevalent in the general population, but enough data is not there to support such findings. Some therapies involving laxatives, prokinetic drugs and opioid-sparing regimens are discussed in this review. Role of liquid paraffin has been discussed in this review. Adverse effects of liquid paraffin also have been reviewed in brief. It has been finally concluded that although liquid paraffin is used as laxative but more studies need to be done to establish reliability and safety of use as laxative.

1.0 INTRODUCTION

Constipation is a problem characterized by consistent difficult or incomplete defecation. [1]“Constipation is a multisymptom gastrointestinal (GI) disorder that negatively impacts the quality of life of those affected and generates abundant health care costs”. [2] Worldwide prevalence of constipation ranges from 8% to 30%. [3] It is a complex disease, with many causes such as lesser physical activity, bad dietary pattern, faulty lifestyle, and use of over-the-counter medications. [4] According to ROME diagnostic criteria constipation has been developed in the recent years, which assess it in relation to symptoms such as straining; lumpy or hard stools; sensation of incomplete evacuation; sensation of anorectal obstruction/blockage; manual maneuver to facilitate (e.g., digital evacuation support of the pelvic floor); and/or fewer than three defecations per week. [5]

In spite of the fact that there is no standard proposal for the administration of stoppage, the present rules recommend that treatment ought to be founded on conduct changes, which incorporate an expansion in fiber and liquid admission and participating in normal physical exercise. Essential methodology likewise incorporates the utilization of mass shaping operators, probiotics, prebiotics, or synbiotics. Therapeutic treatment with intestinal medicines is utilized when such methodologies are not fruitful. [6]

As many laxatives are sources of sodium, magnesium, or phosphates, their use might be avoided because of their potential to promote electrolyte changes. [7]

2.0 Current therapeutic approaches for treatment of constipation

Various approaches for treatment of constipation have been reported as under:

- Change in diet
- Laxatives
- Secretagogue
- Serotonergic prokinetic agents
- Surgical Consideration

2.1 Change in diet:

This is the most essential methodology of treatment of constipation by changing the eating routine of people. Changes in dietary patterns and way of life changes, for example, empowering satisfactory liquid and fiber consumption, standard exercise, and dietary adjustment. Fiber isn't processed well, complex sugars that either demonstrations by building stool by illustration liquid into stool buildups in the colon on the grounds that a mass purgative or experiences fractional maturation delivering short-chain unsaturated fats, hydrogen, methane, and carbon dioxide. [8]

2.2 Laxatives:

Basic kinds of intestinal medicines are stool conditioners, osmotic diuretics, and stimulant purgatives. Stool conditioners are viable for hard stool consistency and stressing in crap. Osmotic purgatives, for example, lactulose, polyethylene glycol (PEG), or magnesium containing intestinal medicines, increment liquid into the colonic lumen. Stimulant intestinal medicines, for example, sodium picosulfate, bisacodyl, and senna, square colonic liquid assimilation, prompt emission, and quicken colonic travel. Osmotic diuretics are preferred endured over stimulant intestinal medicines, causing less stomach spasms and torment. [9]

2.3 Secretagogues:

Secretagogues treats stoppage by adjusting epithelial particle channels to advance colonic emission and improve colonic travel. Two FDA-affirmed secretagogues promptly accessible for the treatment of perpetual blockage and IBS-C incorporate linaclotide and lubiprostone. [10]

2.4 Serotonergic Prokinetic Agents:

Serotonin is most abundant neurotransmitter in the GI tract and produced by enterochromaffin cells and has role visceral sensation and GI motility. [11]

2.5 Surgical Consideration:

Cecostomy is ordinarily favored in regulated patients with neurologic sores, in whom the system conveys a high achievement rate, going from 40 to 78%. [12]

3.0 Role of Liquid paraffin as laxative

Fluid paraffin or mineral oil straightforward, vapid, scentless, or relatively unscented, slick fluid made out of soaked hydrocarbons acquired from oil. [13] One of the soonest inside utilization of refined oil seems to go back to 1872, when Robert A. Chesebrough was conceded a patent for the make of "another and helpful item from oil". [14]

Prominence of fluid paraffin as treatment for blockage and encopresis stems basically from its mediocrity and simplicity of titration. Change of mineral oil to hydroxy unsaturated fats initiates an osmotic impact, fluid paraffin seems to work basically as a stool ointment. [15] Such highlights make fluid paraffin especially appealing for use in incessant obstruction and encopresis of adolescence, where expansive measurements and delayed organization regularly are essential amid the disimpaction and upkeep periods of treatment, individually. [16]

In direct examination of ointment and stimulant diuretics as upkeep treatment for blockage, fluid paraffin are better, with 11 of 19 kids treated with fluid paraffin effectively stopping drugs following a half year contrasted with just four of 18 utilizing senna. [17] Liquid paraffin was among intestinal medicines utilized in a randomized, controlled examination demonstrating prevalent viability of diuretics joined with social change contrasted and conduct alteration alone in kids with encopresis. [18]

3.1 Toxicity Of Liquid Paraffin

3.1.1 Absorption and histological changes in the gut

In spite of the fact that there is across the board and regularly delayed utilization of this drug in kids around the world, there is no report of fluid paraffin statement in the intestinal tracts or intra-stomach viscera of kids. For instance, Rabah and associates portrayed dissection discoveries in a youngster with Hirschprung's illness who created peritonitis because of fluid paraffin entering the peritoneal pit following bowel purge treatment. There was no proof of fluid paraffin inside the intestinal tissues in this report. [19]

3.1.2 Fat soluble Vitamin absorption

Curtis and Ballmer demonstrated a lessening in serum carotene esteems after utilization of fluid paraffin for quite a while. [20] However, Clark and associates utilized consecutive estimations of fat dissolvable vitamins marker, demonstrated that up to four months of fluid paraffin medications does not unfavorably influence measure of retinol or á tocopherol in body. [15]

4.0 Conclusion

Constipation is big and health concern. Along its high prevalence rates, it puts greater impact on the health and quality of life of general population. Bad dietary patterns, less physical activity, sedentary lifestyle, and poor fluid intake are directly correlated with the higher prevalence rates of constipation. Females and old people are at more risk to have constipation. It

needs proper testing and management at the primary level so as to improve the healthy community.

It has established track record as an effective treatment modality for infant constipation. This medication combine ease of titration with tolerability and sustained effect despite prolonged use, making it lucrative for use in childhood constipation/encopresis. Although the possibility of systemic absorption of liquid paraffin cannot be discounted, the contribution of liquid paraffin to lipid follicles in autopsy studies is unclear. Further studies on the potential for systemic absorption of liquid paraffin are useful.

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