EVALUATING THE THERAPEUTIC EFFICACY OF UNANI REGIMEN IN MANAGING NAUSEA AND VOMITING OF PREGNANCY (NVP).

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Abstracts: Nausea and vomiting are defined as the symptom nausea and vomiting during the first trimester of pregnancy, it is most common symptoms. 80% women are suffering for this condition. Vomiting is two types. Simple vomiting (milder type) and Hyperemesis Gravidarum (sever type).

Hyperemesis Gravidarum is a very severe form of nausea and vomiting during pregnancy. It is much more serious than regular "morning sick ness." It usually starts early, between the **4th and 6th week** of pregnancy. While most women feel a little sick during pregnancy, HG affects about **3 out of every 100** women and is a leading reason why pregnant women need to stay in the hospital. In the 2nd century AD, Hippocrates (460-3 77 BC) and Aristotle (BC) both are first described the hyperemesis gravidarum. This condition may be diagnosed when women loss the weight and other serious conations. In Unani system hyperemesis is mentioned, (***QAY-AL-HAMAL***). In Morden system no of medicine are mentioned. IN Unani system there is no of single and compound medicine are mentioned, they have no any side effect on foetus and mother. For exempla. In single drugs. PROMEGRANTE, *LEMON*, MINTAND CARDAMOM. And compound formula is sikanjbeen Sada, sharbat Anar Sheerin, sikanjbeen lemooni, jawarish anarain, Qurs e hawamil. The primary object of this review is to highlight safe, nontoxic and effective alternates in Unani medicine for managing the *(Qai-al- Hamal*). This paper aims to provides a clinical framework that protects and teratogenic risk associated with synthetic antiemetic drugs during the critical period of organogenesis. To minimize obstetric risk and enhance the health-related quality of life. [1,2,3]

KEY WORD: Introduction, Etiology, Moden Treatment and Unani Treatment.

INTRODUCTION:

Nausea and vomiting are most common condition during first trimester of pregnancy. it's also called Morning sickness. This symptom is usually accursed in first and second miss period and continue until about 14-16 weeks. Nausea and vomiting of pregnancy are widespread clinical condition affecting roughly 80% of gestations. According to William obs. the condition is strongly linked to the biological surge of human chorion gonadotropin (hCG) and the protein Growth Differentiations factor 15 (GDF15). Sever form of nausea and vomiting is called hyperemesis gravidarum, according to the Dutta, it is clinically diagnosed when, persistent vomiting leads to a weight loss of more than 5% of pre-pregnancy. The patient exhibits sign of dehydration and electrolyte imbalance. ketonuria and metabolic disturbances are present due to starvation. Research study has proofed the nausea and vomiting in pregnancy was reported by 59% of patient, and also categorized in the form of mild or moderate. HG is a severe form of NVP, they affect the 0.3 to 3.6 %pregnant women. Epidemiology data suggests a significant disparity in the global prevalence of nausea and vomiting of pregnancy. research indicate that the incidence of NVP is markedly higher within western societies and urbanized population, likely influenced by dietary habits and life style factor common to industrialized environments. Conversely

the condition is not ably less frequent among native African population, as well as across many Asian rural communities, this suggests that cultural, dietary and environmental determinates play a critical role in the manifestation of gestational emetic symptoms. "Nausea and Vomiting of Pregnancy (NVP) represents one of the most prevalent gestational disorders, manifesting across a clinical spectrum from mild to moderate severity. Crucially, severe instances of emesis serve as the second leading cause of maternal hospitalization, necessitating clinical intervention to manage the transition from physiological distress to pathological Hyperemesis Gravidarum (HG). "Clinical investigations have identified distinct demographic profiles that exhibit a heightened susceptibility to Nausea and Vomiting of Pregnancy (NVP). Research underscores a 40% increase in incidence among specific cohorts, most notably within the adolescent maternal group (under 20 years of age) and nulliparous women (first-time mothers). Furthermore, individuals with fewer than 12 years of formal education, those with a non-smoking status, and women presenting with obesity (high BMI) demonstrate a significantly higher risk for gestational emesis. (multiple gestations) are associated with a significantly higher frequency and severity of NVP during the first trimester compared to singleton pregnancies. This elevated incidence is primarily attributed to the synergistic effect of higher circulating levels of human Chorionic Gonadotropin (hCG) and estrogen produced by multiple placentae, which intensifies the emetic response. "While mild emesis is often considered a normal physiological part of gestation, severe NVP is linked to significant adverse perinatal outcomes. Research has established a correlation between intractable vomiting and an elevated risk of Intrauterine Growth Restriction (IUGR). This stunted fetal development is closely mirrored by a higher frequency of Low Birth Weight (LBW) infants among affected mothers. These complications are primarily attributed to the nutritional compromise and caloric deficit resulting from persistent maternal nausea and vomiting, which impairs the adequate transfer of essential nutrients to the developing fetus. (17,18,19). Hyperemesis Gravidarum typically manifests during the first trimester, with an onset usually between the *4th and 5th weeks of gestation. (20) The clinical understanding of HG has evolved significantly over the decades: The Classical Definition (1956 Perspective)

In 1956, the American Pharmaceutical and Chemical Boards characterized HG as a state of intractable (refractory) vomiting This early definition identified a complex syndrome involving:

Metabolic Indicators: Weight depletion.>5% and the presence of ketosis/ketonuria.

Systemic Imbalance: Critical shifts in electrolyte stability.

Organ Dysfunction: Advanced complications such as hepatic impairment, renal distress, neurological disturbances, and retinal hemorrhaging. 5% and the presence of ketosis/ketonuria. (21)

Robinson et al.has established that prolonged maternal malnutrition, secondary to refractory vomiting, can result in a critical deficiency of Vitamin K. Given that Vitamin K is a fundamental cofactor for the synthesis of prothrombin and other coagulation factors, its depletion can disrupt the hemostatic balance and induce pathological clotting (coagulopathy). This underscores the necessity of early nutritional intervention to prevent life-threatening hematological complications during pregnancy. [22]

ETIOLOGY AND PATHOPHYSIOLOGICAL THEORIES: -(23,24,25,26,27)

1. Endocrine and Hormonal Influences:

The most widely accepted theory involves a significant surge in gestational hormones, specifically elevated serum concentrations of beta-hCG and estradiol. These hormonal fluctuations are believed to sensitize the emetic centers in the brain.

2. Mechanical and Physiological Factors:

Physical changes in the gastrointestinal tract, such as intestinal distention and increased gastroesophageal reflux, are thought to contribute to gastric irritability and persistent vomiting.

3. Genetic and Molecular Markers:

Recent genomic studies have identified specific risk factors, including the over-expression of placental genes such as *GDF15* and *IGFBP7, alongside variations in the *RyR2 gene*. These findings suggest a hereditary predisposition to severe forms of NVP and Hyperemesis Gravidarum (HG).

4. Evolutionary and Psychological Perspectives:

Some researchers propose that NVP serves as an evolutionary adaptation, functioning as a biological defense mechanism to avoid potentially embryotoxic substances. Additionally, a psychological predisposition may exacerbate the clinical manifestation of these symptoms.

5. Obstetric Risk Factors:

A higher placental mass, commonly observed in multifetal gestations (twins/triplets) or molar pregnancies, is strongly associated with an increased risk of HG. Furthermore, a positive personal or familial history remains a significant predictor of the condition.

*Differential Diagnosis and Clinical Evaluation of HG: -

The diagnostic protocol for Hyperemesis Gravidarum (HG) is primarily a process of elimination (diagnosis of exclusion). It is imperative for clinicians to differentiate HG from other pathological conditions that manifest with severe emesis during the first trimester.

1. Initial Obstetric Screening: -

To rule out pregnancy-specific triggers such as Gestational Trophoblastic Disease (GTD/Molar Pregnancy) or Multifetal Gestations (Multiple Pregnancies), an immediate obstetric ultrasonography is recommended. These conditions often present with exaggerated β-hCG levels, leading to severe nausea.

2. Comprehensive Differential Diagnostic Categories: -[29,30]

Beyond obstetric causes, several non-pregnancy-related conditions must be excluded to ensure maternal safety:

Category | Potential Differential Diagnoses

Gastrointestinal, Peptic ulcers, biliary tract disorders, appendicitis, hepatitis, gastroparesis, and intestinal blockage.

Genitourinary Renal calculi (stones), pyelonephritis, ovarian torsion, and uremia.

Endocrine & Metabolic Hyperthyroidism, Diabetic Ketoacidosis (DKA), Addison's disease, and porphyria.

Neurological Migraines, vestibular dysfunction, and CNS malignancies.

Pregnancy-Specific Early-onset preeclampsia and Acute Fatty Liver of Pregnancy (AFLP).

Psychological Severe anxiety disorders and clinical depression.

COMPLICATION: -

Hyperemesis gravidarum is associated with profound psychological and systemic complications that significantly compromise maternal health. Clinical data reveals a high prevalence of metal heath distress, with suicidal ideation reported in 32% of severe cases. Depressive disorders and post- traumatic stress disorder. (DTSD) significant physical deterioration is evidenced by sever weight loss exceeding 15% of pre-gestational mass.

Neurological & Nutritional: Severe Vitamin B-complex depletion can trigger Wernicke Encephalopathy.

Metabolic & Vascular: Critical electrolyte imbalances, thyrotoxicosis, and life-threatening thromboembolic events are documented risks.

Mechanical & Organ Injury: Persistent, forceful emesis may lead to traumatic injuries such as Mallory-Weiss Syndrome (esophageal mucosal lacerations resulting in hematemesis), splenic avulsion, retinal detachment, pneumothorax, and rib fractures.

Hepatorenal Dysfunction: Advanced HG may result in acute tubular necrosis, gallbladder dysfunction, and hepatic insufficiency, necessitated by an increased frequency of emergency hospital admissions.

Fetal complication: Intrauterine growth restriction/ low birth weight and prematurity. [31,32,34,35,36,37].

EVALUATION AND ASSESSMENT OF SEVERITY: -

"Standard obstetric protocols mandate that healthcare providers proactively screen for Nausea and Vomiting of Pregnancy (NVP) during every antenatal consultation. Upon clinical presentation, it is essential to perform a systematic evaluation involving body weight monitoring, assessment of hydration status, and the application of a validated scoring scale to quantify severity (Evidence Level IV). The primary clinical objective remains the exclusion of differential diagnoses while accurately grading the intensity of Hyperemesis Gravidarum (HG). To standardize the assessment, most international guidelines (Evidence Level III) now advocate for the Pregnancy-Unique Quantification of Emesis (PUQE-24) Scale [38], [39], [40]. However, contemporary literature suggests that the HELP-score may offer superior sensitivity compared to traditional scales, particularly in identifying high-risk patients who require immediate clinical intervention for severe HG symptoms.[41].

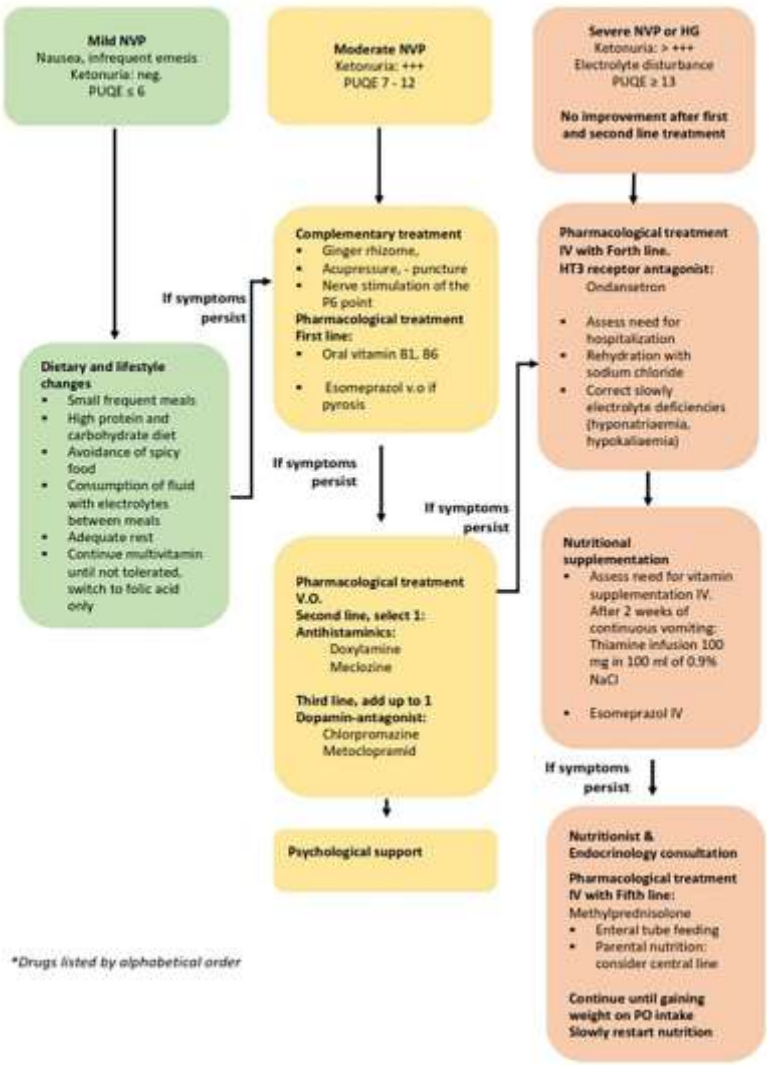

fig.1 [28].

Dietary and life style recommendation: -

Modifying the lifestyle. Avoid the strong scented highly seasoned and spicy food. Avoid the empty gastric state by consuming the small nutrient dense meals at frequent intervals of every 1,2 hrs. prevent full stomach, eat dry fruits and Hight protein diet stop the supplement of iron.[42][43][44][45].

UNANI CONCEPT OF NAUSEA AND VOMITING (***QAY-AL-HAMAL) :*** In Unani medical system nausea and vomiting is mentioned in the term (***QAY-AL-HAMAL).*** [46][47] according to the hypothesized that the primary pathogenesis involved the sequestration of morbid humors (*Mawad-e-Radeeya*) with in thew stomach. which subsite after the 4thmonths of gestation.[48] this material is bilious, phlegmatic (often *(balgham -i-milh*) or black bile. [49,50]. Abu Bakar Muhammad Bin Zakaria Al Razi (865-925) A.D.in his book 'Kitab Al-Hawi' female foetus is more responsible for NVP then female foetus having hotness and female having coldness [.51] nausea and vomiting in mostly occurs in first trimester and disappear after 4th month of G.A, but some female in occurs till the 9th months of pregnancy. The classical Unani masterpiece, Zakhira Khwarizm Shahi by smail Jurjani, elucidates that Qay'al-Haml arises from the body's innate intelligence (Tabiyat) attempting to expel redundant or morbid fluids that are diverted towards the stomach due to the cessation of menses. Jurjani emphasizes that the condition typically peaks in the second month and resolves by the fourth, as the growing fetus begins to utilize the accumulated maternal humors. The text strongly advocates for gastric tonics like Sikanjbeen and the intake of easily digestible (Lateef) foods. to stabilize the hyper-sensitive gastric

mucosa. [52]Vomiting is cause by Su-i-mizaj Saada ,Su-i-mizaj haar Saada ,Su-i-mizaj barid sada , Su-i- mizaj ratb sada ,su-i -mizaj yabis sada , su-i- mizaj safra , su-i-mizaj saudawi, su-i- mizaj balgaham .

UNANI MENAGMAENT: -

USOOL -E- ILAJ (Unani principles of treatment): -

1.ILAJ BIL GHIDHA (Diet-therapy)

2.ILAJ BILTADBEER (Regimental therapy)

3.ILAJ BIL DAWA(Pharmacotherapy)

4.ILAJ BIL YAD(Surgery)

*Ilaj bil tadbeer (Regimental therap): jurjani zakriya

To the Riyazat -e- Khaleefa (light exercise). moderate the walk. Topical application (Zimad) Badiyan (Fennel) alone or in combination with Qinnab (Cannabis) and Sharab-e-Rehani,Floral extracts including,Grape flowers, Gulnar (Pomegranate flower), and Barge-Kiram (Vine leaves). A synergistic blend of Gulnar, Karafs-e-Roomi (Roman celery), and Tukhme-ra (seeds) for gastric stabilization. [51.52]

*Ilaj bil dawa(pharmacotherapy):

In early morning consumption the pomegranate, lie on the bed for 1 hr.

Avoid the hot food and spicy food. Also avoid the sweet dishes.

Single drugs: -

Punica granatum (pomegranate) a study had proof that Punica granatum is used in NVP [53]. Citrus limon (Lemon) A study had proof that lemon aromatherapy led to significant reduction in NVP compare to placebo [54]. Mentha piperita (Mint). Study had proof that mint is used in NVP.in the form of essential oil, and used in other compound drugs [55].Elletaria cardamomum (cardamom). A study had proof that inhalation of cardamom oils is effective in reliving the NVP and also in form of capsules.[56]. Cydonia oblonga (Qunice) a study had in iran and Tehran on the effectiveness of syrup of Cydonia used in treatment of VNP[57][58]. AND other siglr drugs are use Rewand chini, mastagi,sandal safaid, quste sheerin,agar ,kabab, Zanjbeel.[59].

Compound drugs: -

Sakanjabeen Lemooni, a study had proof, sakanjbeen lemoni used in the management of NVP.[60] Sharbat-i-Anar Sheerin ,used in nausea and vomiting during pregnancy.[62] Qurse hawamil is also used in NVP. Gulqand, sikanjabeen sada ,murabba leemu kaghzi.,sharab rehani asfar, sharbate turanj, sharbate leemu, sharbate ghura, qurs- qaranphal. sharbat-i-leemu ,sharbat-i-ghaura ,sharbat-i-zanjabeel , murrabai-aml used in NVP.[62],[63].

Conclusion: -

In conclusion, Nausea and Vomiting of Pregnancy (NVP) and its severe form, Hyperemesis Gravidarum (HG), represent a significant clinical challenge that necessitates a multi-dimensional therapeutic approach. This review underscores the importance of integrating modern diagnostic protocols, such as the PUQE-24 scale, with the profound clinical insights offered by classical Unani literature.in the paper we also discus the single and compound drugs.The evidence suggests that the Unani pharmacological intervention, specifically Sikanjabeen Lemooni, provides a clinically effective, safe, and non-teratogenic alternative to conventional anti-emetics. By aligning modern dietary modifications with the Unani principles of Ghiza-e-Lateef'(light food) and gastric fortification (Taqwiyat-e-Ma'ida), healthcare providers can significantly improve maternal quality of life and mitigate long-term complications.

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