

Hyperemesis Gravidarum helped with Vitamin K and Vitamin C: A Case Report

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Narrative: I report a patient with Hyperemesis Gravidarum. Her dilemma of constant vomiting, the frustration of seeking effective care, the use of AK methods and the resultant beneficial outcome is discussed and reviewed concluding with recommendations that may be helpful for other sufferers.

Indexing Terms: Chiropractic; AK Applied Kinesiology; Hyperemesis Gravidarum; Vitamin K; Vitamin C.

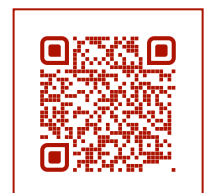
Introduction

This report reviews the dilemma of finding treatment for patients suffering Hyperemesis Gravidarum (HG). A literature review of traditional care, methods of the applied kinesiology approach and a discussion of outcomes of two cases will be presented.

Nausea of pregnancy (NVP) is common and not associated with an abnormal outcome if it finishes in the first trimester. HG is the worse case scenario for the nausea sufferer and may extend through the full term. Complications of Dehydration and malnutrition may create dangers for the mother and the baby. (1) It is estimated that 50-90% of pregnant women may suffer some form of nausea with only 0.3 to 2% having HG. However HG can account for 30% of hospital admissions before 20 weeks. (2) An overview of NVP indicates that 25% of pregnant women will have no symptoms, 25% will have nausea only and 50 % will have nausea and vomiting. It can be progressive leading to hospitalisation for dehydration, electrolyte disturbances, ketonuria, weight loss greater than 5% and malnutrition and can be compared to the nausea and vomiting of chemotherapy. (3, 4)

HG has been associated with nulliparity, multiple births, previous history of an unsuccessful pregnancy, previous HG and obesity. Low risk is associated with advanced age, smoking and war. (5,6,7) The Maternal genes of the mother are more likely associated with 3x more risk for HG than the foetal paternal genes. (8)

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Time lost from work is 14 days at a cost of about US\$3,000 per patient with severe symptoms of NVP in the USA. (9) One study reported a loss of 62 hours of lost employed work and 32 hours of lost household work. (5)

About 10% will not respond to remedies and usually medication will begin. The mildest medication is first accompanied by hospital care where metabolic problems are a risk and/or a greater than 5% weight loss or malnutrition has resulted. Foetal deformities are a risk with management by medication. (10) These deformities range from thalidomide as a cause of limb deformities to cleft palate associated with steroids.

A Google search of principle proposed natural treatments include Acupuncture, hypnosis, ginger and vitamin B6, red raspberry, Vit C and Vit K. (11) Conservative medical management is recommended to begin with including Vit B-6, doxylamine and ginger capsules. Metoclopramide, Promethazine, Ondansetron and Methylprednisolone may be progressively added and used with caution. Emergency care for hydration, electrolyte and nutritional support may be parenteral, enteral or nasogastric with varying degrees of success and risk of bacteraemia, sepsis and thrombosis. (12)

This case report is important as it is one of the few cases recorded that uses a novel approach to resolving HG as quickly as possible. It is also unusual in that it uses old research observations that showed promising results with relative safety but for some reason more extensive research was never conducted.

The Null Hypothesis for this case study is that a method of using Vit K and Vit C will have no benefit for a patient suffering HG.

Case Report

This report describes a 28 year old homemaking mother, 5' 7½ (171.5cm tall, 72 kilo weight before her 2nd pregnancy. She said she was referred by a family member to contact our clinic. She consulted by telephone describing her distress suffering the nausea of pregnancy diagnosed as hyperemesis gravidarum. She said her weight had dropped to 62 kg over the previous 13 weeks from constant vomiting.

The patient had similar problems in the previous pregnancy 2 years earlier. She said that she hoped that she wouldn't suffer the same with this pregnancy. She described hyperemesis gravidarum from 6 weeks to 20 weeks before it stopped at that time. This time it began earlier at 4 weeks with more intense symptoms prompting this consultation and treatment that eventually began at 13 weeks.

During the first pregnancy the patient was prescribed Maxalon (metachlopramide) and Ondanzatron (4MG AND 8MG) and Cyclamine. The patient explained that she still felt sick it was only when she was throwing up uncontrollably or at least having consistent urges to throw up that the medications were working. She was recommended to take them consistently every 4-6 hrs(Maxalon) however when the medications were vomited, the ondanzatron was recommended.

The patient was concerned that this was a chemotherapy drug but found it worked better, however none stopped the constant nausea feeling or even helped recover the dehydration. The dehydration that she experienced caused the condition to worsen. She found that when she was properly hydrated she was able to keep from vomiting however during both pregnancies she was never recommended fluids by either her doctor or the hospital staff. She was only ever given injections of Maxalon and Ondanzatron wafers as they were guaranteed not to reflux. She took all

of the medication during the 6 weeks till 20 week term. Birth of a girl was normal with no complications.

During the second pregnancy symptoms followed a similar pattern but more intense with constant vomiting. At 10 weeks her 10 kilo weight loss prompted compassionate help from friends and family motivating her to call our clinic for help. This time medical management included Maxalon plus Ondanzatron for additional help between weeks 5 - 8. The medication helped digest some food but the vomiting continued. Her request for fluids during hospital visits was refused due to lack of dehydration signs. Treatment in hospital included 2-3 Maxalon gluteal injections that temporarily stimulated vomiting until it was absorbed. It helped reduce the intensity of the vomiting. The patient travelled to Perth to be with family where similar treatment continued from Week 8 to week 13.

Consultation and treatment

I was unable to physically examine the patient. I advised the patient that I would complete a literature search and return her call after our telephone consultation. I conducted the search and could find little additional information to assist her outside of the medical care she was receiving. I did advise her that hydration was important and attending a hospital for a saline drip may be necessary as a last resort. First aid measures involving sipping fluids, sucking ice and a salt water enema were all suggested.

I advised the patient to ask her doctor to give her Vitamin K and Vitamin C injections (due to vomiting oral supplements) according to Merkel's advice, and included his paper. Her doctor kept delaying administration of the injections for 3 weeks until the patient 'pestered' him to do it. He explained that while Vitamin K is routinely given to eligible infants no one has given it to their mothers. Injections of Vit C were unobtainable, One injection of Vit K was administered at 13 weeks with 2 x 500mg tablets of Vit C.

Initially the nausea stopped for 24 hours with a return of normal appetite. Fatigue and nausea returned for 3-4 days without vomiting. Then the nausea stopped. 2 mild vomits have occurred when missing meals which the patient thought may be related to low blood sugar. Self management was now possible using liquid Chlorophyll (a source of Vit K) and 2 Vit C 500 mg tablets chewed daily for 3-4 weeks eliminating all signs of nausea. Based on the previous pregnancy following the same pattern, the patient was happy to have weeks 13 - 20 nausea free.

AK literature search

A search of AK literature was conducted to find alternative methods of care for NVP and HG. George Goodheart, a Chiropractor, discussed his methods for helping this condition in 1987. (13)

Goodheart's Method

1. Oral Vit C diagnosed with lingual Vit C absorption test. Up to 25 mg 3x per day.
2. Vit K 5 mg per day
3. Use liquid or tablet forms of Chlorophyll
4. Consider Psychological counselling

5. Use a protomorphogen (liver extract)
6. Diagnose lymphatic, vascular, neurological, acupuncture, and respiratory reflexes relating to the liver
7. Review Postural stress with foetal development needing mechanical treatment.

Goodheart based this nutritional supplementation of Vit K and Vit C on current nutritional knowledge of that time and experience with manipulative skills as a Chiropractor.

Goodheart described a paper that used Vit K and Vit C therapy published in 1952. (14) A search of Pubmed located the paper by Richard Merkel MD, who discussed the use of menadione bisulfite and ascorbic acid in the treatment of nausea and vomiting of pregnancy. This was described as a preliminary report. Merkel proposed a hypothesis resolving the problem of NVP and HG could be accomplished by decreasing placental capillary permeability preventing transfer of the 'vomiting factor' to the expectant mother.

He used this treatment in a series of seventy consecutive cases of nausea and/or vomiting of pregnancy, varying from mild to severe. Thirty-three of the women were primigravidae and thirty-seven multigravidae. Seven were Rh⁻ negative, and sixty-three Rh⁺. All were given orally each day 25mg of ascorbic acid and 5mg of menadione bisulfite without any attempt at psychotherapy or other supportive measures. The prothrombin levels in the blood and the bleeding time of each patient were determined both prior to medication and afterward.

Therapy, averaging thirty days, was continued until the withdrawal of medication produced no recurrence of symptoms. 64 had a remission of their symptoms within 72 hours. 3 were relieved of vomiting but continued with nausea, three had no relief and one advanced case into the 2nd trimester found it was the only therapy that helped. Three patients continued therapy until delivery. Iron absorption improved with therapy. Vit C alone had no benefit. No dangers with the medication at these doses was observed. Merkel recommended further research to validate his preliminary report.

Merkel's study was followed up in 1958 by two Canadian researchers, M Ferron and H Gibeault with similar results. (15) Gerber describes his use of this therapy and the difficulty getting it published in a column in 'The Townsend Report', an online health newsletter. (16) He refers to a paper by Wright published in 1984. (17) Some evidence for Vit K deficiency was presented in a case study by Robinson et al in 1998. This study of a woman at 15 weeks gestation with HG and epistaxis concluded that Vit K deficiency and coagulopathy should be considered in women with HG who present with a bleeding diathesis. They recommended prophylactic Vit K replacement should be considered in cases where HG is severe and protracted. (18) They were not aware of previous studies and acknowledged that Vit K deficiency is a known complication of malnutrition and a known cause of coagulopathy.

Of Goodheart's methods, only 1, 2, and 3 were convenient with a telephone consultation. Unfortunately persistent vomiting by the patient was so severe, I suggested that the patient ask her doctor for injections of Vit K given that this was the current mode of medication being used for other vomiting medications. While Vit K injections are given routinely to prevent bleeding problems in babies at birth this deficiency may not correlate to the mother. (19)

A grey literature search in the International College of Applied Kinesiology located another case study authored by Daniel Duffy titled Nausea of Pregnancy responds to Chiropractic care. (20) In this paper, Duffy reported patient management success using the following Applied Kinesiology protocol:

1. Flaccidity of the ileocecal valve (ICV)
2. Subluxation complex involving malposition of the Occiput and lack of proper lymphatic flow in the Right Upper Trapezius and Left Sternocleidomastoid
3. Subluxation complex involving the dorsal spine
4. Pelvic instability caused by a subluxation complex involving the sacroiliac joint and right piriformis muscle
5. Subluxation complex involving lymphatic drainage of the Sartorius muscle, including Whole Adrenal Gland-negated positive therapy localisation (FTL) of the Adrenal Neurolymphatic points. The source of Whole Adrenal Gland was Biotice.

Unfortunately this methodology needed a face to face consultation for the manual therapy interventions to be administered. I have added this protocol here for the benefit of the reader when opportunity arises.

Discussion

This case illustrates the consultative management of a multigravida mother suffering hyperemesis gravidarum using AK research material. Goodheart's observations published in his 1987 manual discussed this disabling condition of hyperemesis gravidarum and enabled location of historical research material relevant to this patient.

Information for this case presentation was sourced from the diaries of the patient and personal interviews via text, email and telephone. Diagnosis of Hyperemesis Gravidarum was determined by medical examination.

The patient determined that she needed more than usual care for the HG she was suffering based on her experience with her past pregnancy. Useful information in addition to current knowledge was found that posed little risk to the mother and foetus compared to the medications offered. Cooperative care by attending physicians may have been lacking given the mother's observation of dehydration and malnutrition she felt she was suffering as well as including the delay in reviewing and using the presented research for proposed and relatively immediate relief. When treatment was finally given the mother perceived a benefit of a possible extra 7 weeks vomit free compared to her first baby.

At the time of writing the mother was well and not suffering HG.

Conclusion

New knowledge from this application of historical data indicates that VNP and HG may have a cause related to an increase capillary permeability of the placental base releasing a 'vomiting factor'.

This case report illustrates that this cause may be helped by treatment with Vitamin K and Vitamin C administered either orally or injection. AK methods had sufficiently recorded the data and proposed other treatments that may be supportive of this theory. The null hypothesis was found false for this patient.

This case adds to the sparse data for this method of treatment but should encourage further research. This data is specific to this patient and should not be taken as a general treatment for this condition.

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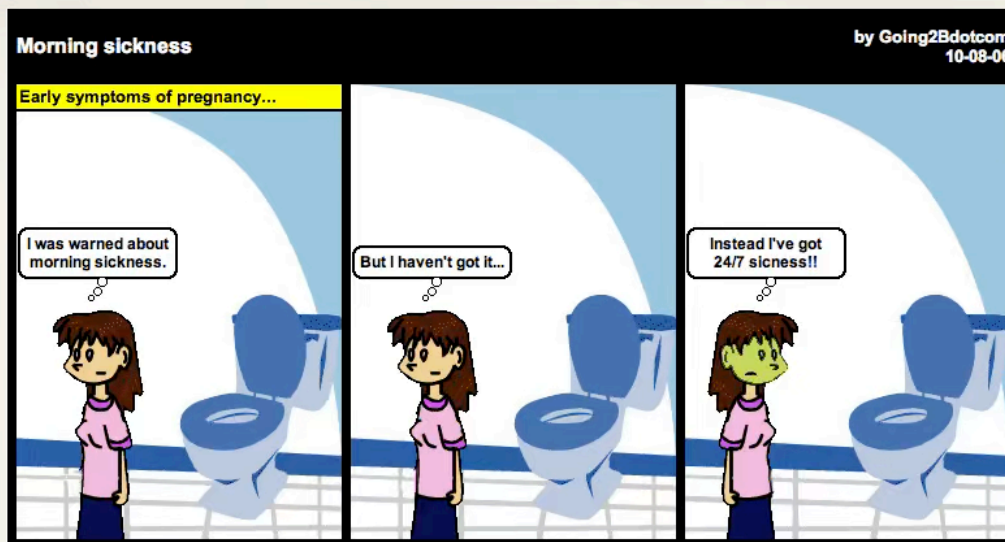
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Slide show

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