

Cranberry Juice and Its Benefits as Prophylaxis for IVU in Pregnant Women

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Abstract: In pregnant patients urinary tract infections are frequent, which can sometimes complicate the course of it. Multiple treatments have been used as prophylaxis to prevent such pathologies without finding benefits for the fetus and the mother.

Background: Compare decrease in urinary tract infections in pregnant women who consume plow juice as prophylaxis of those who do not consume it

Materials and Methods: longitudinal analytical, prophylaxis will be given to pregnant women cranberry juice three times a day, with a total of 100 ml and EGO will be performed in the 6th and 9th months in pregnant women between 20 and 35 years, with prenatal control at the Hospital del Sureste, in the city of Villahermosa, Tabasco . Obtaining with this a control of the number of cases of UTI with or without prophylaxis and prevention of pathology in the last trimester, which is where the risk of complications of preterm birth increases.

Results: Find a decrease in urinary tract infections in pregnancies that consume cranberry juice as a prophylaxis compared to those that did not show consumption.

Key Word: Infections, Routes, Urinary, Juice, Cranberry, Pregnant.

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I. Introduction

Urinary tract infections are a global health problem, with a 9 to 1 ratio in women compared to men. In 90% of cases the bacteria that originates it is Escherichia coli. During the reproductive life, this infection is the cause of a great number of work disabilities, hence the need to insist on its prophylaxis. It can originate in different parts of the urinary tract, the most frequent being bladder and kidneys. Cranberry juice is an option to prevent urinary tract infection, a quality demonstrated in different recent publications, which highlights that its mechanism of action lies in the effect that proanthocyanidins exert, which are a class of flavonoids that they are the main pigments of many seeds, and they are also present in the vegetative tissues of some forage plants, especially those of type A, in the urothelium, which prevent Escherichia coli from adhering to it; This is how it exerts its antibacterial action, which is achieved by ingesting at least 100 ml of juice a day. [1] Cranberry has been used since ancient times as a treatment for urinary infections. It was thought that it acted by acidifying the urine, but in recent studies it has been shown that its active substances: fructose and proanthocyanidins act by preventing the adhesion of E. coli bacteria to the urothelium, mainly in women, but not in patients with neurogenic bladder. The review states that cranberry acts as a preventive, not as a treatment for urinary infections. Multiple studies are currently under way to find the usefulness of proanthocyanidins in other organs. [2] Urinary tract infection is a clinical entity that is frequently associated with pregnancy; The clinical variants are asymptomatic bacteriuria, cystitis and acute pyelonephritis. There is controversy over whether asymptomatic bacteriuria screening in pregnant women should be a mandatory procedure in prenatal care. It was concluded that scrutiny of asymptomatic bacteriuria in pregnant women should be a mandatory procedure within prenatal care and that in all cases diagnosed should be indicated treatment with antibiotics. [3] Timely care will improve the prognosis of our patients.

II. Material And Methods

1. Study design.

b) Analytical or comparative (*)

Cases and controls (*)

B. According to the number of measurements ()

Two or more measurements (Longitudinal) (*)

C. According to the chronological relationship between the start of the study and the observation.

Prospective or current (*)

2. Type of investigation

Application:

Clinic: risks, preventive, treatments, individual prognoses. (*)

3. By level of evidence

Clinical: Clear and limited methodology and risk-benefits. (*)

4. By research level Explanatory

Study population Pregnant women from 20 to 35 years old, in Villahermosa Tabasco with prenatal control at Hospital del Sureste.

Inclusion criteria Pregnant women, aged 20 to 35 years, with prenatal control at the hospital in the southeast, by Dr. Nolasco Ble, who are in the third trimester of pregnancy. Not allergic to cranberry juice, with economic possibility not to interrupt the consumption of cranberry juice and committed to the study.

Exclusion criteria Pregnant patients with poor attachment or control of chronic diseases, mainly diabetes. Women with poor prenatal control. Women with active urinary tract infections in performing the EGO in the 6th month. Women with chronic pathologies of urinary treatment.

Elimination Criteria Women with prenatal control in another health unit. Women with high risk pregnancies. Women who are in the first or second trimester of pregnancy. Shows Sample technique A non-probabilistic technique was used by trial. Pregnant women in the 3rd trimester of pregnancy with ages of 25-35 years who carry out their prenatal control with Dr. Ana Kristel Nolasco Ble, in the Hospital del Sureste, Villahermosa, Tabasco.

Sample's size calculation A sampling is carried out by trials because the population is small, all N = that met the inclusion criteria were included, so no sample size calculation will be performed.

Method and instrument of data collection In the prenatal control of pregnant women, they will be encouraged to read leaflets of the benefit of cranberry juice in the prevention of UTI. EGO will be performed to all women between 25 and 35 years of age in the 6th month of pregnancy, women who already present IVU at the time of this will be removed from the study, since the goal of our study that It is the prophylaxis, once the women without the presence of IVU had 2 groups separated. The first group will drink 33 ml every 8 hours, with an approximate total of 100 ml of cranberry juice daily, during the last trimester of pregnancy. The second group will continue with their usual prenatal control without cranberry juice intake. There will be control of the number of cadres due to urinary problems of both groups. On the 9th month, EGO will be performed on all participating women, thus analyzing the decrease in bacteria in the urinary tract due to the intake of cranberry juice. At the end the data will be emptied by number of frequency of consultations for urinary problems, and number of pathological EGOS in both groups.

III. Result

PREGNANT CONSUMING ARANDANO JUICE	
EGO+	4
EGO -	26
	30

TABLE 1. EGO TAKEN AT THE END OF THE 3rd QUARTER

DRINKS WITHOUT CONSUMPTION JUICE	
EGO+	23
EGO -	7
	30

TABLE 2. EGO TAKEN AT THE END OF THE 3rd QUARTER

	t	T	d	d 2
EGO +	1	4	3	9
EGO -	2	7	5	25
EGO +	3	23	20	400
EGO -	4	26	22	484
TOTAL		60		918

P= 1-6 X 918/60 (602-1)

P= 5508/ 215940

P=0.98

E=0.02

"Our P is positive, so we can say that there is an association between the consumption of cranberry juice and a decrease in IVU in pregnant women between 20 and 35 years old at the Southeast Hospital in Villahermosa, Tabasco."

INDIVIDUAL	AGE	GESTATION WEEKS	EGO (IERO)	CRANBERRY JUICE	EGO
EMB1	26	29	NEGATIVE	POSITIVE	NEGATIVE
EMB2	24	28	NEGATIVE	POSITIVE	NEGATIVE
EMB3	27	27	NEGATIVE	POSITIVE	NEGATIVE
EMB4	30	28	NEGATIVE	POSITIVE	NEGATIVE
EMB5	31	28	NEGATIVE	POSITIVE	NEGATIVE
EMB6	33	27	NEGATIVE	POSITIVE	POSITITVE
EMB7	24	26	NEGATIVE	POSITIVE	NEGATIVE
EMB8	24	27	NEGATIVE	POSITIVE	NEGATIVE
EMB9	34	27	NEGATIVE	POSITIVE	NEGATIVE
EMB10	27	27	NEGATIVE	POSITIVE	NEGATIVE
EMB11	28	27	NEGATIVE	POSITIVE	POSITIVE
EMB12	28	27	NEGATIVE	POSITIVE	POSITIVE
EMB13	26	28	NEGATIVE	POSITIVE	NEGATIVE
EMB14	25	28	NEGATIVE	POSITIVE	NEGATIVE
EMB15	25	26	NEGATIVE	POSITIVE	NEGATIVE
EMB16	25	28	NEGATIVE	POSITIVE	NEGATIVE
EMB17	28	28	NEGATIVE	POSITIVE	NEGATIVE
EMB18	30	28	NEGATIVE	POSITIVE	NEGATIVE
EMB19	30	28	NEGATIVE	POSITIVE	NEGATIVE
EMB20	26	28	NEGATIVE	POSITIVE	NEGATIVE
EMB21	22	28	NEGATIVE	POSITIVE	NEGATIVE
EMB22	23	27	NEGATIVE	POSITIVE	NEGATIVE
EMB23	21	27	NEGATIVE	POSITIVE	NEGATIVE
EMB24	21	28	NEGATIVE	POSITIVE	NEGATIVE
EMB25	24	28	NEGATIVE	POSITIVE	POSITIVE
EMB26	25	27	NEGATIVE	POSITIVE	NEGATIVE
EMB27	25	28	NEGATIVE	POSITIVE	NEGATIVE
EMB28	28	26	NEGATIVE	POSITIVE	NEGATIVE
EMB29	29	28	NEGATIVE	POSITIVE	NEGATIVE
EMB30	29	28	NEGATIVE	POSITIVE	NEGATIVE
EMB31	27	28	NEGATIVE	NEGATIVE	POSITIVE
EMB32	22	28	NEGATIVE	NEGATIVE	POSITIVE
EMB33	24	28	NEGATIVE	NEGATIVE	NEGATIVE
EMB34	25	27	NEGATIVE	NEGATIVE	POSITIVE
EMB35	23	27	NEGATIVE	NEGATIVE	POSITIVE
EMB36	26	28	NEGATIVE	NEGATIVE	POSITIVE
EMB37	27	28	NEGATIVE	NEGATIVE	NEGATIVE
EMB38	28	28	NEGATIVE	NEGATIVE	POSITITVE
EMB39	31	28	NEGATIVE	NEGATIVE	POSITITVE
EMB40	31	28	NEGATIVE	NEGATIVE	POSITITVE
EMB41	35	28	NEGATIVE	NEGATIVE	POSITITVE
EMB42	35	28	NEGATIVE	NEGATIVE	POSITITVE
EMB43	27	28	NEGATIVE	NEGATIVE	POSITITVE
EMB44	29	27	NEGATIVE	NEGATIVE	NEGATIVE
EMB45	23	27	NEGATIVE	NEGATIVE	POSITITVE
EMB46	24	28	NEGATIVE	NEGATIVE	POSITITVE
EMB47	24	27	NEGATIVE	NEGATIVE	POSITITVE
EMB48	26	27	NEGATIVE	NEGATIVE	POSITITVE
EMB49	26	28	NEGATIVE	NEGATIVE	NEGATIVE
EMB50	27	28	NEGATIVE	NEGATIVE	NEGATIVE
EMB51	28	28	NEGATIVE	NEGATIVE	POSITITVE
EMB52	28	27	NEGATIVE	NEGATIVE	POSITITVE
EMB53	35	27	NEGATIVE	NEGATIVE	POSITITVE
EMB54	33	28	NEGATIVE	NEGATIVE	POSITITVE
EMB55	22	28	NEGATIVE	NEGATIVE	POSITITVE
EMB56	29	28	NEGATIVE	NEGATIVE	NEGATIVE
EMB57	28	27	NEGATIVE	NEGATIVE	POSITITVE
EMB58	30	28	NEGATIVE	NEGATIVE	POSITITVE
EMB59	29	27	NEGATIVE	NEGATIVE	NEGATIVE
EMB60	24	27	NEGATIVE	NEGATIVE	POSITITVE

IV. Discussion

The study will be carried out in accordance with the declaration of Helsinki and in accordance with the regulations of the General Health Law, regarding health research: in Title II, Chapter I, Article 17, the study is considered without risk, since It is a study that does not use random methods of allocation to therapeutic schemes, which put the integrity of the patient at risk.

Physical social or legal risks to which patients may be subjected

Pregnant patients do not present any risk in the consumption of cranberry juice, it was sought to comply with nutritional characteristics for these patients, with the minimum of conservatives, and pregnant women with contraindications for their intake will be excluded. The EGO does not present risks as it will be taken in a controlled, in-hospital environment.

This research has as a main priority to determine the benefits of consuming cranberry juice in pregnant women, which can prevent some urinary tract diseases. This can be useful for institutions in charge of providing medical services to the population that will be studied on this occasion, helping to solve diseases that cause complications during pregnancy and even prevent abortions due to the presence of urinary tract infections. The importance of this research lies, then, in the social impact that it could have in the future since the information obtained was channeled to the competent authorities to help the Tabasco population, in the same way the patients were provided information so that in their home can help to carry a pregnancy with greater prevention and in a stable way. We verify that the consumption of cranberry juice in pregnant patients between the ages of 20 and 35 decreases urinary tract infections, due to the presence of nutrients in this fruit. This seeks to raise awareness among doctors and patients about complications during pregnancy and how to prevent them in an easy way; since urinary tract infections are of high prevalence during pregnancy in the state of Tabasco. Having with this an adequate prenatal control, succeeding in the conclusion of it.

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