Acupuncture et chimiothérapies

Bibliographie

Centre de documentation du GERA
192 chemin des cèdres
83130 La Garde France
centre.doc@gera.fr
vomissements des chimiothérapies

essais cliniques

1- gera: 37260/di/re
P6 ACUPUNCTURE : AN EFFECTIVE NON-TOXIC ANTI-EMETIC IN CANCER CHEMOTHERAPY. DUNDEE JW ET AL. british journal of anaesthesia. ,1322. (eng).
Patient avec cancer du testicule et subissant une chimiothérapie. L'électroacupuncture au 6MC diminue l'incidence des nausées et vomissements. [10,03 /chimiotherapie--testicule-22,07-cta-6mc-23,04-]

8- gera: 15071/di/ra
[23,04 /radiotherapie-chimiotherapie-]

14- gera: 85047/di/re
Note préliminaire sur l'action antiémétique de l'électroacupuncture dans les chimiothérapies. [10,03 /6mc-5,12-chimiotherapie-]

37- gera: 83167/di/re
Rapport de 2 cas de patients sous chimiothérapie. L'acupression au 6MC réduit les nausées et vomissements. [10,03 /-23,04-chimiotherapie-6mc-acupression-]

43- gera: 85023/di/re
Previous work from our department has shown that P6 acupuncture is an effective adjuvant to conventional antiemetic therapy for patients having citotoxic drugs. However, its efficacy is limited to about 8h. The current studies show that the application of an elasticized wrist band with a stud placed over the acupuncture point, and pressed regularly every 2h, will prolong the antiemetic action for 24h. This proved more effective in hospitalized patients (20/20) than in outpatients (15/20), presumably due to the encouragement given to regularly press the stud. [10,03 /chimiotherapie-6mc-acupression-23,04-5,12-]

44- gera: 85026/di/re
L'acupuncture au 6MC a une action antiémétique qui dure 8h chez des patients soumis à une chimiothérapie. L'acupression par l'intermédiaire d'une bande élastique effectuée par le patient 5mn toutes les 2h prolonge l'effet de 24h. [10,03 /acupression-chimiotherapie-6mc-acupression-]

45- gera: 61325/di/ra
[THERAPEUTIC OBSERVATION GASTROINTESTINAL REACTION OF RADIO AND CHEMOTHERAPY BY EAR POINTS]. HUANG XIMEI ET AL. chinese acupuncture and moxibustion. 1990,10(5),7-8 (chi*). ref:2
The gastrointestinal reaction of radio and chemotherapy for a long time, has been an outstanding question in the treatment of carcinomatosis. The author stuck Semen Vaccariae seeds on ear points, like adrenal, stomach, mouth (or lung), brain (or occiput), ear-shenmen and asked the patients to press the points for four or five times a day, each time one minute. In general, at the first day of ear treatment, the gastrointestinal reaction might be relieved, and three days later symptoms disappeared or greatly alleviated. Among 139 cases, 22 cases were not obviously relieved, which were regarded as failed. According to author's observation, the curative effect wasn't related with the types of primary affection and the course of
chemotherapy, but was closely connected with the degree of the patient's reaction. [10,03 /acupression-radiotherapie-5,10-chimiotherapie-]

49- gera: 60763/di/ra
[A MAGNETIC PIECE APPLIED TO NEIGUAN POINT FOR PREVENTION AND CURE OF NAUSEA AND VOMITING CAUSED BY CIS-DIAMMINO-DICHLOROPLATINUM]. LIU SHAOXIANGL ET AL. journal of traditional chinese medicine. 1990,31(7),42. (chi).
[10,03 /chimiotherapie-5,13-6mc-23,04-]

50- gera: 81566/di/ra
L'AZIONE ANTIEMETICA DEL PUNTO "NEIGUAN" IN PAZIENTI ONCOLOGICI IN TRATTAMENTO CHEMIO E RADIOTERAPICO. PICA G ET AL. rivista italiana di agopuntura. 1990,69,53-60 (ita).
[10,03 /ctanr-6mc-radiotherapie-chimiotherapie-23,04-]

54- gera: 65585/di/ra
[10,03 /chimiotherapie-5,15-36e-]

56- gera: 83420/di/re

The beneficial effects of transcutaneous electrical stimulation (TCES) of the PC-6 anti-emetic point (Neiguan) as an adjuvant to standard anti-emetics was studied in over 100 patients in whom chemotherapy-induced sickness was not adequately controlled by antiemetics alone. Although the results were not quite as good as with invasive acupuncture, more than 75% of patients achieved considerable benefit from what was a nontoxic procedure. The use of large diffuse low impedance electrodes simplifies the technique. The 2 hourly application of commercially available Sea Bands prolongs the anti-emetic action. Best results were obtained from the 2 hourly self-administration of 5 minutes of TCES of PC-6 using a simple battery-operated TENS machine (15 Hz) to activate a large, easy-to-place surface electrode and increasing current until Qi is elicited. [10,03 /5,12-6mc-chimiotherapie-acupression-cta-23,04-]

61- gera: 83607/di/ra

6MC unilatéral (à l'opposé de la perfusion). a) Soit Magnétothérapie : application de la face Nord d'un aimant maintenu 2h après la fin de la perfusion. b) Soit non-magnétothérapie : application d'un simple disque de fer. c) Soit acupression : application d'une bille métallique. 61,4% des patients n'ont aucune nausée ou vomissement avec magnétothérapie, alors qu'aucun patient ne voit la disparition des signes [10,03 avec les deux autres méthodes de contrôle./chimiotherapie-5,13-6mc-acupression-]

63- gera: 50615/di/re

The already proven anti-emetic action of P6 (Neiguan) acupuncture has been used with success in patients having cancer chemotherapy. The more patient-acceptable alternative to needling, transcutaneous electrical stimulation of P6, has been equated using a simple, custom-built stimulator and large surface electrodes. This can be administered by the patient and preliminary findings show it to be a useful adjunct to both the older anti-emetics and the new 5 HT 3 antagonist, ondansetron. [10,03 /chimiotherapie-6mc-5,12-]

Acupressure using Sea Bands was used as an anti-emetic in patients receiving cancer chemotherapy. The study was a randomized, single blind, crossover study, comparing acupressure on the correct point (Pericardium 6) with an incorrect point on the ankle. The hypothesis to he tested was that acupressure over Pericardium 6 decreases nausea during the time patients actually receive chemotherapy. The conclusion demonstrated a highly significant difference between the correct and incorrect acupressure point. Those receiving wrist acupressure had significantly less sickness and nausea and their overall mood and condition was substantially better than those treated with the incorrect acupressure point. This was particularly noticeable in those receiving chemotherapy with a high emetic potential. [10,03 /chimiotherapie-ecr-cta-23,04-6mc-acupression-]


In comparison with the normal people group, values of blood CD2+ and CD4+ in patients with malignant tumors treated with radiotherapy and chemotherapy were significantly lower and the ratio of CD4+ and CD8+ decrease obviously (all P<0.001); CD8+ had no apparent change (P>0.05). Following acupunctural treatment, values of CD2+, CD4+ and the ratio of CD4+ to CD8+ increased obviously (all P<0.001); while those of the medicinal control group ad no significant change after treatment (P>0.05). Values of IgG, IgA and IgM in patients' serum presented an abnormal decreasing or increasing tendency, and C3 in minority of patients were raised. Results indicated that there was a biphasic regulatory effect of acupuncture on the disturbance of humoral immunity and could correct the deviation of C3 level; and its effect was better than or similar to that of the medicine control group. It demonstrates that acupuncture can enhance and regulate the immune function of patients treated with radiotherapy and chemotherapy and thus reduce side effects of these two therapies. [23,04 /chimiotherapie-radiotherapie-23,02-]

[OBSERVATION ON THERAPEUTIC EFFECTS OF ACUPUNCTURE TREATMENT IN 44 CASES WITH GASTROINTESTINAL REACTION INDUCED BY RADIOTHERAPY AND CHEMOTHERAPY]. CHEN GUIPING ET AL. chinese acupuncture and moxibustion. 1996,16(7),9 (chi).


[CLINICAL STUDY ON ACUPUNCTURE CONTROLLING GASTROINTESTINAL RESPONSE INDUCED BY CHEMOTHERAPY]. WANG SHOUZHANG ET AL. chinese acupuncture and moxibustion. 1997,17(1),17 (chi).

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The chemotherapy could cause serious reaction of stomach and intestine. The patient's vomiting could be obviously alleviated by moxibustion on Zhongwan, Neiguan, Suzanli, Qihai points. The moxibustion on above points could alleviate the symptoms, abate the poisonous reaction of chemotherapy, increase the diet, relax stomach, stop the vomiting, activate the function of spleen, benefit Qi and provide the advantage of the further treatment of the patients suffered from tumor.


Gastrointestinal (G-I) reactions, one of the main reactions encountered in intraarterial chemotherapy for malignant tumors, manifest themselves as discomfort in the epigastrium, anorexia, nausea, vomiting, diarrhea or constipation. They may seriously jeopardise the patient's recovery or even the results of the treatment. Symptomatic management is commonly given with unsatisfactory responses. In recent years, we have used ear-acupuncture to combat these problems and obtained good results. We wish to share the results with our colleagues at home and abroad.

CLINICAL RESEARCH ON ATTENUATIONG CHEMOTHERAPEUTIC TOXICITY BY ACUPOINT STIMULATION THERAPY]. LIU AN ET AL. shanghai journal of acupuncture and moxibustion. 1998,17(6),8 (chi*).

Acupoint stimulation therapy was used to attenuate the chemotherapeutic toxicity. Among 80 cases, 40 cases were in treatment group and 40 cases in control group. An observation was made of clinical effect of acupoint stimulation therapy on chemotherapeutic toxicity and its safe effect on the body. Consequently, the total effective rate was 81%, which was not significantly different as compared with that in control group (drug group).

THE CLINICAL STUDY ON THE TREATMENT OF LEUKOPENIA BY MOXIBUSTION]. LU MEI. acupuncture research. 1998,23(2),115 (chi*).

In this paper author adopted the moxibustion to treat thirty malignant patients who were accepting chemotherapy, and the result showed that this therapy could stimulate the hematopoietic function of the marrow, increase the amount of leucocyte. There was a marked difference between moxibustion and non-moxibustion groups. It also could improve sleep and alleviate the reaction of stomach and intestine, and pain.

HE-NE LASER ACUPUNCTURE FOR CHEMOTHERAPEUTIC REACTION IN CANCER CASES. LIU XIA. international journal of clinical acupuncture. 1999,10(2),167-71 (eng). ref:

WHAT SHOULD BE KEPT IN MIND FOR MANAGEMENT OF THE TOXIC SIDE-EFFECTS INDUCED BY POSTOPERATIVE CHEMO-AND RADIOThERAPY FOR OVARIAN TUMOR? YAO SHIAN. journal of tcm. 1999,19(3),238 (eng ). ref:

INTERACTION OF PATIENTS' EXPECTATION ON ACUPUNCTURE AS AN ANTIEMATIC ADJUNCT TREATMENT ABSTRACT. SHEN J. forsch komplementarmed. 2000,7,51 (eng).


essais contrôlés randomisés

AN APPROACH TO THE EFFECT ON TUMORS OF ACUPUNCTURE IN COMBINATION WITH RADIOTHERAPY OR CHEMOTHERAPY. XIA YUQING ET AL. journal of tcm. 1986,6(1),23-6 (eng*).

ACUPUNCTURE TO PREVENT CISPLATIN-ASSOCIATED VOMITING. DUNDEE JW ET AL. lancet. 1987,1,1083. (eng). ref:0

ACUPUNCTURE ET TOXICITES DIGESTIVE HAUTE ET GENERALE DE LA CHIMIOTHERAPIE ANTICANCEREUSE. LAN CHOW WING TF. these medecine,bordeaux 2. 1987,52P (fra).


In a multi-facet study we evaluated the efficacy of P6 electroacupuncture (10 Hz applied for 5 min) as an antiemetic in patients receiving a variety of cancer chemotherapy drugs. The study involved 130 (15 in an open pilot study, 10 in a randomized placebo controlled crossover study and 105 in a definitive study) patients who had a history of distressing sickness after previous treatment, and who, on the basis of a previous survey, would be expected to have a 96% chance of this with subsequent therapy. Sickness was either completely absent or reduced considerably in 97% of patients and no side effects were encountered. The limited crossover study, using a 'dummy' acupuncture (ACP) point showed that the beneficial effects were limited to the P6 point. Logistic and ethical considerations excluded the possibility of carrying out a larger placebo-controlled study. While in our hands P6 ACP was an effective antiemetic in patients having cancer chemotherapy, because of the time involved and the brevity of the action (8 h) an alternative approach to electro-ACP is required before this technique is adopted clinically. [10,03 /chimiotherapie-23,04-ecr]

64- gera: 50772/di/re


Etude de l'action anti-émétique du 6MC (électrostimulation de surface, 5 minutes toutes les 2 heures, 5 jours), chez des patients subissant une chimiothérapie basée sur Cisplatin associé à d'autres antibiotiques et traités par Ondansetron (Antagoniste 5HT) à visée antiémétique. Suivi sur 2 cures : une avec électrostimulation du 6MC, l'autre sans. Le 6MC potentialise l'action de Ondansetron. [10,03 /5,12-cta-chimiotherapie-ecr-6mc-]

180- gera: 77690/di/ra

[CLINICAL STUDY ON TREATMENT OF NASOPHARYNGEAL CARCINOMA BY RADIO AND CHEMOTHERAPY WITH SUPPLEMENTARY MOXIBUSTION ON SHENQUE POINT]. CHEN KAI ET AL. chinese journal of integrated traditional and western medicine. 2000,20(10),733 (chi*). [16,05 /5,09-8vc-ecr-radiotherapie-chimiotherapie-]

Objective: to evaluate the effect of supplementary moxibustion in treating III, IV a stage nasopharyngeal carcinoma (NPC) with radio- and chemotherapy. Methods: fifty-six cases of NPC were randomly divided into two groups, 28 in each group. They were treated with radiotherapy in routine or chemotherapy adopting AD protocol. Salt-separated moxibustion on Shenque (Ren 8) point was given to the treated group from beginning of radio- and chemotherapy for 30 times as one therapeutic course. Results: the remission rate in the two groups after radio- and chemotherapy was not different significantly. The toxic and side-effect occurrence was less in the treated group than in the control group (P<0.05). The 5-year local control rates of NPC and cervical lymphnode were 85.7% and 85.0% in the treated group, which were higher than those in the control group (78.6% and 78.9%), the 5-year survival rate in the two groups were 50.0% and 35.7% respectively. After radio- and chemotherapy, the blood content of malonyldialdehyde (MDA), middle molecular substance and sulfhydryl reduced the SOD activity ascended in the treated group, the difference was significant as compared with those in the control group (P<0.05, P<0.01). Conclusion: the supplementary moxibustion on Shenque point could obviously reduce the toxic side-effect of advanced NPC patients treated with radio- and chemotherapy.

181- gera: 71663/di/re

ACUPRESSURE FOR NAUSEA: RESULTS OF A PILOT STUDY. DIBBLE SL ET AL. oncol nurs forum. 2000,27(1),41-7 (eng).

PURPOSE/OBJECTIVES: To compare differences in nausea experience and intensity in women undergoing chemotherapy for breast cancer between those receiving usual care plus acupressure training and treatment and those receiving only usual care. DESIGN: Single-cycle, randomized clinical trial. SETTING: Outpatient oncology clinic in a major teaching medical center and a private outpatient oncology practice. SAMPLE: Seventeen women participated in the study. The typical participant was 49.5 years old (SD = 6.0), Caucasian (59%), not married/partnered (76%), on disability (53%), born a U.S. citizen (76%), and heterosexual (88%); lived alone (59%); had at least graduated from high school (100%); and had an annual personal income of 50,000 or greater (65%). METHODS: The intervention included finger acupressure bilaterally at P6 and ST36, acupressure points located on the forearm and by the knee. Baseline and
poststudy questionnaires plus a daily log were used to collect data. **MAIN RESEARCH VARIABLES:** Nausea experience measured by the Rhodes inventory of Nausea, Vomiting, and Retching and nausea intensity. **FINDINGS:** Significant differences existed between the two groups in regard to nausea experience (p < 0.01) and nausea intensity (p < 0.04) during the first 10 days of the chemotherapy cycle, with the acupressure group reporting less intensity and experience of nausea. **CONCLUSIONS:** Finger acupressure may decrease nausea among women undergoing chemotherapy for breast cancer. **IMPLICATIONS FOR NURSING PRACTICE:** This study must be replicated prior to advising patients about the efficacy of acupressure for the treatment of nausea. [10,03 /acupressure-ecr-chimiotherapie-cta-23,04-]

190- gera: 71715/di/ra

**INTERACTION OF PATIENTS' EXPECTATION ON ACUPUNCTURE AS AN ANTIEMETIC ADJUNCT TREATMENT. ABSTRACT.** SHEN J ET AL. *deutsche zeitschrift fur akupunktur.* 2000,43(1),42 (eng). ref:1

Background and Objectives: Most patients receiving myeloablative chemotherapy experience severe nausea and vomiting despite aggressive antiemetic pharmacotherapy. Prior studies suggested that acupuncture might be a useful adjunct in reducing chemotherapy-induced side effects. We assessed whether patients' expectation can affect symptomatic outcome in the use of acupuncture in myeloablative chemotherapy. Methods: Women receiving myeloablative chemotherapy for advanced breast cancer were randomly assigned to 3-treatment group's (1). Specific low-frequency electro-acupuncture "de Qi" at P-6 and ST-36 for 20 minutes daily for 5 days; (2) "non-specific acupuncture" at control points near LU-7 and GB-34 with mock electro-stimulation on the same schedule; (3) no adjunct acupuncture. All subjects received identical four-day chemotherapy and aggressive antiemetic pharmacotherapy. The patient's expectation of treatment effect was measured at baseline prior to the start of chemotherapy. Chemotherapy-induced symptoms were self-recorded daily using a previously validated symptom diary. Results: Patients' expectations were comparable at baseline across treatment groups. For all patients, bivariate analysis of nausea by pre-treatment expectation did not reveal significant correlation. A significant effect in nausea symptom was found across treatment groups; further testing found heterogeneity and confirmed an interaction effect between expectation and treatment. Conclusions: We found that patient's pre-treatment expectation did not strongly impact symptom outcome as a main effect; rather, expectation exerts its influence through an interaction with the adjunct antiemetic acupuncture treatment. [10,03 /chimiotherapie-ecr-cta-]

191- gera: 77145/di/re

**ELECTROACUPUNCTURE FOR CONTROL OF MYELOABLATIVE CHEMOTHERAPY-INDUCED EMESIS. A RANDOMIZED CONTROLLED TRIAL.** SHEN J ET AL. *jama.* 2000,284(21),2755-61 (eng). ref:0

Context: High-dose chemotherapy poses considerable challenges to emesis management. Although prior studies suggest that acupuncture may reduce nausea and emesis, it is unclear whether such benefit comes from the nonspecific effects of attention and clinician-patient interaction. Objective: To compare the effectiveness of electroacupuncture vs minimal needling and mock electrical stimulation or antiemetic medications alone in controlling emesis among patients undergoing a highly emetogenic chemotherapy regimen. Design: Three-arm, parallel-group, randomized controlled trial conducted from March 1996 to December 1997, with a 5-day study period and a 9-day follow-up. Setting: Oncology center at a university medical center. Patients: One hundred four women (mean age, 46 years) with high-risk breast cancer. Interventions: Patients were randomly assigned to receive low-frequency electroacupuncture at classic antiemetic acupuncture points once daily for 5 days (n = 37); minimal needling at control points with mock electrostimulation on the same schedule (n = 33); or no adjunct needling (n = 34). All patients received concurrent triple antiemetic pharmacotherapy and high-dose chemotherapy (cyclophosphamide, cisplatin, and carbustine). Main Outcome Measures: Total number of emesis episodes occurring during the 5-day study period and the proportion of emesis-free days, compared among the 3 groups. Results: The number of emesis episodes occurring during the 5 days was lower for patients receiving electroacupuncture compared with those receiving minimal needling or pharmacotherapy alone (median number of episodes, 5, 10 and 15, respectively; P<0.01). The electroacupuncture group had fewer episodes of emesis than the minimal needling group (P<0.01), whereas the minimal needling group had fewer episodes of emesis than the antiemetic pharmacotherapy alone group (P = 0.1). The differences among groups were not significant during the 9-day follow-up period (P = 18). Conclusions: In this study of patients with breast cancer receiving high-dose chemotherapy, adjunct electroacupuncture was more effective in controlling emesis than minimal needling or
antiemetic pharmacotherapy alone, although the observed effect had limited duration. [10,03 /ecr-chimiotherapie-]

196- gera: 72185/di/ra

The effects on anti-vomiting by using acupuncture plus ear-point pressing was observed in 84 cases by random self-contrast controls. All cases were subjected to a combined platinum chemotherapy with diaminedichloroplatinum (DDP) 50 mg daily for 3 days. The first round of chemotherapy was applied with acupuncture treatment of medication of metoclopramide, and vice versa in the second round. The results showed that in acupuncture plus ear-point press group (acupuncture group), the effective rate on anti-vomiting was 88.1%, being markedly higher than 35.7% in the metoclopramide medication group (medication group) P<0.01. The effective rate was also found higher in the medication group for late onset of vomiting. It was suggested that acupuncture could relieve vomiting caused by platinum chemotherapy, and with no adverse effects, indicating that it was useful in preventing vomiting caused by chemotherapy in patients with cancer. [10,03 /acupression-5,10-chimiotherapie-23,04-ecr-]

synthèses et revues

21- gera: 82446/di/ra

ACUPUNCTURE/ACUPRESSSURE AS AN ANTIEMETIC : STUDIES OF ITS USE IN POST-OPERATIVE VOMITING, CANCER CHEMOTHERAPY AND SICKNESS OF EARLY PREGNANCY. DUNDEE J. complementary medical research. 1988,3(1),2-14 (eng). ref:0
Studies on the use of P6 (Neiguan) acupuncture or acupressure as an antiemetic have been reviewed. Both manual and electro (10z) acupuncture applied for five minutes given at the same time as a preoperative opioid will significantly reduce the incidence of postoperative sickness in patients undergoing minor gynaecological operations under a standard non-emetic anaesthetic. This protection is not afforded by stimulation of a point at the right elbow ("dummy" acupuncture). Problems were encountered in applying these findings to patients having cancer chemotherapy and for ethical reasons only a limited control (dummy) study was possible. Patients who had previously been sick following cancer chemotherapy, and who were very likely to have sickness on the second occasion, were subjected to P6 electroacupuncture at the same time as giving the infusion of the chemotherapeutic agent and this produced a partial reduction in sickness. The antiemetic effects only lasted for 8 hours and an alternative means of teaching patients to do this themselves is currently being studied. Acupressure at P6 point will significantly reduce the incidence of morning sickness of early pregnancy as compared with a control group and a group of women using pressure at another "dummy" point. The problems encountered in these studies are reviewed but no suggestions have been made as to the reasons for this beneficial therapeutic effect. Despite wide dissemination of this knowledge no-one has yet attempted to confirm or refute the findings. [10,03 /rg-23,04-11,10-chimiotherapie-]

42- gera: 29351/di/ra

 Having seen pregnant women pressing the P6 point as a preventative for morning sickness, stimulation of this point for 5-10 minutes by invasive (manual or electrical acupuncture) or non-invasive (transcutaneous electrical stimulation or acupressure) means was studied as an antiemetic. In well controlled studies it was shown that acupuncture administered before the opioid premedication significantly reduced postoperative sickness for 6-8 hours. Non-invasive methods were effective for a shorter period of time, with nausea and/or vomiting often occurring after 2 hours. To be effective the treatment has to be given before the opioid. Its effect can be abolished by local anestheisia. Stimulation of a dummy point near the elbow is ineffective. While acupressure reduces morning sickness, the pressure has to be applied for 5 minutes every 2 hours. There is probably a large psychological element in this. The most rewarding results are obtained when P6 stimulation is used in conjunction with standard antiemetics before cancer chemotherapy. Here again the invasive approach is more effective than non-invasive. Recent studies have involved self-stimulation using a portable batter-operated square wave stimulator fixed at 10 Hz, and a large EKG surface electrode on the P6
point. Stimulation is applied for 5 minutes every two hours. While modern antiemetics can control vomiting, they are relatively ineffective against nausea, but this can be controlled by regular use of the stimulator. The results are most promising. [10,03 /6mc-21,04-11,10-chimiotherapie-rg]

59- gera: 64461/di/ra

[23,04 /chimiotherapie-rg-5,09-]

142- gera: 87216/co/re

NONPHARMACOLOGIC MANAGEMENT OF CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING. KING CR. oncol nurs forum. 1997,24(7 SUP,41-8 (eng).

PURPOSE/OBJECTIVES: To review the nonpharmacologic interventions indicated to prevent or control chemotherapy-induced nausea and vomiting. DATA SOURCES: Journal articles. DATA SYNTHESIS: Despite improvements in antiemetic drug therapy, as many as 60% of patients with cancer who are treated with antineoplastic agents experience nausea and vomiting. Anticipatory nausea and vomiting are thought to be caused by the behavioral process of classical conditioning. Most nonpharmacologic interventions that are used to prevent or control nausea and vomiting in patients with cancer are classified as behavioral interventions. Behavioral interventions involve the acquisition of adaptive behavioral skills to interrupt the conditioning cycle. CONCLUSIONS: Nonpharmacologic interventions appear to be effective in reducing anticipatory and post-treatment nausea and vomiting. IMPLICATIONS FOR NURSING PRACTICE: These behavioral interventions can be effective in reducing anticipatory and post-treatment nausea and vomiting. Oncology nurses must learn these nonpharmacologic techniques and teach their patients to use them in combination with their prescribed antiemetic therapy. [23,04 /10,03-chimiotherapie-]

162- gera: 59021/di/re


We assessed the efficacy of nonpharmacologic techniques to prevent postoperative nausea and vomiting (PONV) by systematic review. These studies included acupuncture, electroacupuncture, transcutaneous electrical nerve stimulation, acupoint stimulation, and acupressure. Of the 24 randomized trials retrieved by a search of articles indexed on the MEDLINE and EMBASE databases (19801997), 19 were eligible for metaanalysis. The primary outcomes were the incidence of nausea, vomiting, or both 06 h (early efficacy) or 048 h (late efficacy) after surgery. The pooled relative risk (RR) and numbers needed to treat (NNT) were calculated. In children, no benefit was found. Some results in adults were significant. Nonpharmacologic techniques were similar to antiemetics in preventing early vomiting (RR = 0.89 [95% confidence interval 0.471.67]; NNT = 63 [10infinity]) and late vomiting (RR = 0.80 [0.351.81]; NNT = 25 [5infinity]) in adults. Nonpharmacologic techniques were better than placebo at preventing early nausea (RR = 0.34 [0.200.58]; NNT = 4 [36]) and early vomiting in adults (RR = 0.47 [0.340.64]; NNT = 5 [48]). Nonpharmacologic techniques were similar to placebo in preventing late vomiting in adults (RR = 0.81 [0.461.42]; NNT = 14 [6infinity]). Using nonpharmacologic techniques, 20%25% of adults will not have early PONV compared with placebo. It may be an alternative to receiving no treatment or firstline antiemetics. IMPLICATIONS: This systematic review showed that nonpharmacologic techniques were equivalent to commonly used antiemetic drugs in preventing vomiting after surgery. Nonpharmacologic techniques were more effective than placebo in preventing nausea and vomiting within 6 h of surgery in adults, but there was no benefit in children. [10,03 /21,04-chimiotherapie-11,10-rg-metaanalyse-]

182- gera: 73009/di/ra

[23,04 /radiotherapie-chimiotherapie-rg-]
ACUPUNCTURE TREATMENT OF SIDE-EFFECTS OF CHEMOTHERAPY. FAN YU ET AL. international journal of clinical acupuncture. 2000,11(1),23 (eng). ref:1
Acupuncture has proved to be effective in alleviating the side-effects of chemotherapeutic agents. The following is a review of the recent advances in this respect. [23,04 /chimiotherapie-rg-]

197- gera: 74010/di/ra
One of the leading causes of death, cancer has become the hot spot for medical research in both modern medicine and traditional Chinese medicine. The role of acupuncture and moxibustion is gaining recognition in the medical circle, not only in bettering clinical condition and reducing side effects of radiotherapy and chemotherapy, but also in improving general immunity and inhibiting the growth of cancer or even dissolving the tumors. It is especially suitable for those who are contraindicated for surgery, radio- and chemotherapy; it serves to improve the quality of their life for sometime at least. [23,04 /rg-radiotherapie-chimiotherapie-]

études expérimentales

137- gera: 85617/di/ra
[EXPERIMENTAL STUDY ON EFFECTS OF ELECTROACUPUNCTURE ON GASTROINTESTINAL FUNCTIONS IN RATS AFTER CHEMOTHERAPY]. LI YING ET AL. chinese acupuncture and moxibustion. 1996,16(3),31 (chi*).
In the experiment, the protective effects of electroacupuncture on gastrointestinal functions were investigated in rats after chemotherapy from gastrointestinal pathology and other respects. Results indicated that in rats after chemotherapy electroacupuncture could avoid that gastric mucosa thinned out and mural cells decreased, prevented necrosis of the intestinal mucosa epithelium and scaling of superficial glands, inhibited focal hyperplasia of intra-mucosal fibrous tissue. Electroacupuncture also could inhibit excitability of gastric mucosa and reduced the sensitivity of stimulation of chemotherapeutic agents. Therefore, it plays the role of protecting the gastrointestinal. [10,01 /chimiotherapie-23,04-]

141- gera: 85887/di/ra
[EFFECTS OF ACUPUNCTURE AND MOXIBUSTION AT "ZUSANLI" POINT (ST36) ON SUPEROXIDE DISMUTASE IN MICE RECEIVING CYCLOPHOSPHAMIDE]. SUN XINONG ET AL. chinese acupuncture and moxibustion. 1996,16(6),49 (chi).
[23,04 /chimiotherapie-]

145- gera: 56571/di/ra
[RESEARCH ON THE EFFECT OF DIFFERENT THERAPEUTIC PHASE OF MOXIBUSTION ON CHEMOTHERAPEUTIC RAT BY CTX]. SHANG MINGHUA ET AL. acupuncture research. 1997,22(3),171 (chi*).

156- gera: 67359/di/ra
Cyclophosphamide (CTX) can do harm to the antioxidie system of the body, which causes the damage of hyperlipoxide. In our research of SOD (in serum and liver) and MDA (in liver), the results show there are significant differences between the experimental and control groups (the SOD of former is lower, but MDA is higher). From the experiment, it is found that acupuncture can protect the antioxidice system of the body, improve the activity of SOD, decrease the accumulation of metabolism of lipin, lower the side-effect of CTX. But the effects are coordinated with the points. (Zusanli is better than Dazui, Mingmen) stimulated degree (five minutes stimulation is better than ten) and the chosen method (Acupuncture is better than moxibustion). [23,04 /eaa-souris-chimiotherapie-5,09-]

171- gera: 59718/di/ra
EXPERIMENTAL STUDY ON PROTECTIVE ACTION OF MEDICINAL MOXIBUSTION AT SHENQUE (CV 8) POINT ON GASTRIC MUCOSA OF RATS CARRING TUMOR IN CHEMOTHERAPY. YANG DANHONG ET AL. CHINESE ACUPUNCTURE AND MOXIBUSTION. 1999, 19(8), 483 (CHI*). ref:
Therapeutic effect of medicinal moxibustion at "Shenque" (CV 8) point on toxic reaction of digestive tract induced by antineoplastic chemotherapeutic drug 5-florouracil (5-Fu) was observed in the rats carrying tumor 256. Results indicated that medicinal moxibustion at "Shenque"(CV8) point could raise obviously PGE2 level and volume of blood flow in gastric mucosa, decrease injury index of gastric mucosa, and slightly thicken gastric mucosa as compared with those of chemotherapy group. It is suggested that medicinal moxibustion at "Shenque" point has protective action on injury of gastric mucosa induced by 5-Fu, which is related to increase of PGE2 level and improvement of volume of blood in gastric mucosa. [10,05 /rat-eaa-8vc-pg-5,09-chimiotherapie-23,04-]

EFFECTS OF ACUPOINT APPLICATION OF FU ZHENG SHENG BAI PLASTER ON HEMATOPOIETIC AND IMMUNE SYSTEMS IN MICE OF REPEATED CHEMOTHERAPY. CAO DAMING. CHINESE ACUPUNCTURE AND MOXIBUSTION. 2000, 20(11), 697 (CHI).
[12,02 /souris-eaa-chimiotherapie-5,15-]