1.5Observation index

Recovery: The symptoms and signs disappeared, the integral is reduced more than 85%

Excellent: The symptoms and signs were improved, the integral is reduced more than 50%.

Effective: The symptoms and signs were improved, the integral is reduced more than 20%.

Inefficacy: Symptoms, signs of improvement is not obvious, or even worse, the symptom integral reduced less than 20%.

1.6 statistical method: Using SPSS17.0 software, Measurement data using T test, count data using chi square test.

2. treatment outcome and analysis

The treatment group and the control group after two weeks of treatment efficacy analysis

group	The number of cases	Total effective	recovery	Effective	effective	invalid
treatment group	30	28	12(40.0%)	12(40.0%)	4(13.3%)	2(6.7%)
control group	30	28	6(20.0%)	17(56.7%)	5(16.6%)	2(6.7%)

by t test, two groups of patients before and after treatment had significant difference than that two groups of drugs for TCM accompanying symptoms have certain effect; two groups after two weeks of treatment by t test with significant difference ($P < 0.05$), shows that the treatment group to accompany constipation symptoms improved better than the control group. After the end of treatment, the two groups compared treatment groups of TCM symptoms improved significantly better than the control group and after treatment two weeks have significant difference, while the control group had no difference that appropriate treatment is symptomatic group, curative effect satisfaction.

3.Discuss The modern Chinese medicine constipation constipation is blocked, prolonged defecation, or for stool and learned a poor disease.Actually, because of the diet structure, region and quality differences and bowel habits of different defecation interval have very different, defecation habits to every 2-3 days or longer.In principle, as long as the defecation without pain, unobstructed, they can not be regarded as constipation, and if defecation pain, drying, and discomfort, even abdominal distension, regardless of the stool interval of time how long should regarded as constipation, so fundamentally said constipation refers to the stool in the anal canal, through the difficult, shipped out for extended periods of time, discharge frequency is reduced, fecal induration, discharge difficult symptoms

This prescriptionadopted by Chaihu Shugan Qi,by Cyperus Digest food,the root of three-nerved taste spicebush Spicy,can make gas operation .Party by modern pharmacological studies confirmed that semen Raphani, Fructus aurantii Immaturus and Radix Paeoniae Alba, Radix Bupleuri, hemp seed, Amomum villosum, etc. on the gastrointestinal motility dysfunction has certain improvement action.And Radix Paeoniae Alba, Radix Bupleuri and calm, analgesic effect, which with anxiety in patients with constipation in the experimental group, improvement of symptoms of abdominal pain was significantly greater than that of in the control group, there is a certain relationship. In addition because of Rhizoma Cyperi, Radix Bupleuri with estrogen like effects, for women because of endocrine disorders caused by constipation can play certain conditioning effect. Finally, the majority of drug has a certain degree of antibacterial activity, which due to the long-term constipation caused by intestinal flora significantly improved. All of the medcine Played a total of Shugan Qi, laxative,Can be very good to improve the symptoms of constipation.

CONSTRUCTION AND ANTI-TUMOR IN VITRO OF NANO-DRUG DELIVERY SYSTEM OF ARSENIC TRIOXIDE-TETRANDRINE

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Abstract Prepared "arsenic trioxide - tetrandrine bifuncnationl double combination of molecular" on targeted drug delivery system by nanoparticle size that less than 100nm and high encapsulation efficiency.After comparing the two kinds of nanoparticles prepared by PLGA and MPEG-PLGA, the As2O3-TET-MPEG-PLGA-NPS showed a smaller particle size, higher encapsulation efficiency .The pharmacokinetic study in rats showed that the bioavailability was higher, and the release effect was better.In vitro anti-tumor studies showed that As2O3-TET-MPEG-PLGA-NPS could effectively increase the number of tumor cells in the early stage of apoptosis, induce the programmed apoptosis of cells, and block the growth of cells in G2/M phase.

Key words:Arsenic trioxide; tetrandrine; PLGA; Acute promyelocytic leukemia; Anti-tumor in vitro

Arsenic trioxide had attracted much attention in the field of cancer therapy, because it had a certain anti-tumor effect and reverse multidrug resistance (MDR).Although the simple arsenic trioxide (AS2O3) nano delivery system could increse the therapy and alleviate the toxicity adverse effect, but its target was single, unsatisfactory curative effect were still restricted in the application.The main objective of this project was to construct the "double drug loaded nanoparticles".The resistance of AS2O3 combined with traditional Chinese medicine anti-multidrug resistance composition of tetrandrine (TET). Build a nano-drug dliverysystermby PLGA/MPEG-PLGA carrier. Later, we would use the double drug nano delivery system

to study on the nanoparticles aiming the inhibitory effects of HL-60/ADR cells, and the mechanism of reversing tumor MDR.

Objective Prepared “arsenic trioxide - tetrandrinebifuncnationl double combination of molecular” on targeted drug delivery system by PLGA and MPEG modified PLGA as carrier. Studied the safety evaluation of nanoparticles and the release ability of nanoparticles in vitro and the comparison of the drug release ability before and after modification. Evaluated the pharmacokinetics of the administration of rat tail vein.Investigated the effects of nanoparticles on apoptosis and cycle of acute promyelocytic leukemia (HL-60) cells in vitro.

Materials and methods Screened the effective concentration range of As2O3 and TET against tumor cells in vitro by MTT, and to determine the optimal proportion of HL-60. Prepared As2O3-TET-PLGA-NPS and As2O3-TET-MPEG-PLGA-NPS.Analysed the release profiles of As2O3-TET-PLGA-NPS or As2O3-TET-MPEG-PLGA-NPS in vitro. The fitting parameters of the non-compartmental model were obtained.The apoptosis of HL-60 cells was detected by Annexin V-FITC / PI double staining method and Hoechst 33342 staining method . The apoptosis of HL-60 cells was evaluated by MTT .The cell cycle arrest of HL-60 cells was detected by flow cytometry with PI single staining.

Results and discussion When the TET concentration is 2μg·ml-1 and As2O3 was 0.5-0.6 μg·ml-1in the concentration range,they had a synergistic effect in combination with two (Q > 1.15); when the TET concentration is 3 μg·ml-1 and As2O3 was in 0.8-1.0μg·ml-1 concentration range, they combined with a synergistic effect (Q > 1.15).As2O3-TET-PLGA-NPS lyophilization injection with an average diameter of 84.66nm, PDI was 0.132, Zeta potential was -7.5mV. As2O3-TET-MPEG-PLGA-NPS lyophilization injection with an average diameter of 66.21nm, PDI is 0.178, Zeta potential is -0.701mV. The average encapsulation efficiency was 86.18% and the drug loading was about 10.49%.According to the analysis of the experimental results of dynamic agents, we found that the release effect of As2O3-TET-MPEG-PLGA-NPS compared to As2O3-TET-PLGA-NPS had higher bioavailability, longer half-life and residence time in vivo.

Study on the anti-tumor effect of in vitro showed that As2O3-TET emulsion and As2O3-TET-MPEG-PLGA-NPS could effectively inhibit the growth of tumor cells, the apoptosis rate in a certain range of concentration and time dependence, and As2O3-TET-MPEG-PLGA-NPS group, the early apoptosis rate was significantly higher than that of As2O3-TET emulsion for injection group; The cell cycle were blocked in G2/M phase by As2O3-TET emulsion and As2O3-TET-MPEG-PLGA-NPS ,and nanoparticles group was better.

EFFICACY OF ELECTRO-ACUPUNCTURE PRETREATMENT IN REDUCING APOPTOSIS AND PROMOTING NEUROLOGICAL RECOVERY AFTER CEREBRAL ISCHEMIA-REPERFUSION INJURY IN RAT BY A MECHANISM OF SUPPRESSINGMPTP CHANNEL OPENING

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Objective:Electro-acupuncture (EA) pretreatment, that is, before cerebral ischemia to give repeated or single electro-acupuncture stimulation, can induce cerebral ischemic tolerance, reduce cerebral ischemia-reperfusion injury, the mechanism remainsto be further clarified.In this study, we will observe the effect of EA pretreatment on neurological function and apoptosis in ischemic penumbra after transient cerebral ischemia-reperfusion (CIR) injury, and to investigate whether the neuroprotective effect of EA pretreatment is related to up-regulation of mitochondrial Bcl-2/Bax ratio, inhibition of mPTPchannel opening, reduction of Cyt C release, and ultimately inhibition of apoptosis.

Methods:A rat model of CIR injury induced by 2h of right middle cerebral artery occlusion (MCAO) followed by 24h of reperfusion. 36 Male Sprague-Dawley rats were randomly divided into 3 groups: Sham, MCAO, and EA+MCAO (n=12). Animals in EA+MCAO group were treated with EA at GV20 6 days a week for 2 weeks prior to the induction of I/R. The degree of neurological deficit was evaluated by the modified neurological severity scores (mNSS),the apoptotic rate of cortical cells in peripheral cortex of cerebral infarction was measured by TUNEL staining,the opening of mPTPchannel in cerebral ischemic penumbra was detected by colorimetric method,and the expression of mitochondrial Bcl-2, Bax and cytoplasmic Cyt Cin cerebral ischemic penumbra were detected by Western blotat 24h after reperfusion, respectively.

Results:24h after reperfusion, mNSS was increased,the apoptotic rate in peripheral cortex of cerebral infarction was increased, the mPTP channel was exceptionally open,and the expression of mitochondrial Bcl-2, Bax and cytoplasmic Cyt C were both up-regulated in MCAO group than those in the Sham group, all the differences werestatistically significant(P<0.05); Compared with MACO group, the mNSS was reduced, the apoptotic rate in peripheral cortex of cerebral infarction was significantly decreased, the abnormal opening of the mPTP channel was suppressed, and the mitochondrial Bcl-2/Bax ratio was up-regulated, while the expression of cytoplasmic Cyt C was down-regulated in EA+MCAO group, all the differences were statistically significant(P<0.05).

Conclusion:Electro-acupuncture pretreatment can induce cerebral ischemic tolerance, inhibit cerebral ischemia-reperfusion injury in rats after CIR injury, improve neurological deficits.The potential mechanism of action is related to the up-regulation of mitochondrial Bcl-2/Bax ratio, inhibition abnormal openingof mPTPchannel,thereby reduction of Cyt C release.

Key words: cerebral ischemia-reperfusion injury; electro-acupuncture pretreatment; neurological function;apoptosis; mPTPchannel