Analysis on The Application Prospect of Staghorn Glue in Uterine Dysplasia

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Abstract. To explore the application prospect of Chinese medicine deerhorn glue in uterine dysplasia.\textbf{Methods :}The association rule analysis and factor analysis of the included standard Chinese medicine were conducted using the journal literature collected by cnki as the data source, and the tools of Excel 2013, SPSS Modeler 14.1 and SPSS Statistics 19.0.\textbf{Results :} Among the 106 prescriptions included in the inclusion criteria, 38 high-frequency drugs with the frequency of $>10$ were used, among which angelica sinensis (84 times, 79.25%), rehmannia rehmannii (73 times, 68.87%), dota cuscuta (72 times, 67.92%) and medlar fruit (46 times, 43.40%) were the most common. The drugs for the treatment of uterine dysplasia were mainly wen (691 times, 54.50%), ping (310 times, 24.25%), wuwei (937 times, 42.80%), guijing (977 times, 30.09%) and kidney (771 times, 23.74%). The most commonly used drugs were tonic drugs for deficiency (803 times, 63.28%) and drugs for activating blood circulation and removing blood stasis (169 times, 13.32%). In association rule analysis, 14 combinations with the highest association intensity were found, and 9 common factors were extracted from factor analysis.\textbf{Conclusion:} Treatment of uterine dysplasia more to make up for virtual medicine is given priority to, such as Chinese angelica, rehmannia glutinosa, etc.), the clinical use of compatibility of promoting blood circulation to remove blood stasis pill (herba Leonuri, salvia miltiorrhiza), temperature in medicine, medicinal choosing GanWen, liver and kidney by the combination of drugs such as medicine, antler glue from sexual flavour to the efficacy of application, etc., in accordance with its statistical results, it has great development prospects, treatment can be further explored.

1. Introduction

Antler glue is a kind of solid glue made by decocting and concentrating antlers in water, also known as white glue. It is salty, mild in nature, rich in vitamin B1, and has the functions of tonifying kidney Yang, benefiting Yin blood and strong hemostasis. Mainly used for kidney deficiency or qi and blood deficiency and cold, see impotence, spermatorrhea, frequent urination, vertigo, tinnitus and leakage of blood, blood in the stool, blood in the urine, etc [1-2]. Uterine dysplasia calls infantile uterus again, it is deputy in kidney canal rendezvous inside short period of time stops development to be caused by namely. Clinical expression is menstruation maladjusted, infecund, its pathogeny pathogenesis basically is kidney empty, classics is hematic inadequacy, hyperaemia is maladjusted, because this is...
treated, treat when warm kidney fills essence to raise blood, recuperate strong ren [3]. With reference to the effect of Chinese medicine of antler glue and under the guidance of the theory of traditional Chinese medicine, it is known that antler glue can play a certain role in uterine dysplasia by its effect of tonifying kidney and Yang. There are relevant experimental studies on cnki, but only three literatures, one master's thesis [4] and two clinical applications have been obtained by the advanced retrieval on the topic of "uterine dysplasia + antler glue", which shows that the researches are relatively few. Based on the database model, this paper searched on CNKI with the topic of "uterine dysplasia", screened out relevant Chinese herbal compounds, made a statistical analysis of the Chinese herbal medicines used to treat uterine dysplasia, and discussed the status of staghorn glue, so as to provide guidance for the application prospect of staghorn glue in uterine dysplasia.

2. Materials and methods

2.1. Data sources
Fill in the subject of "advanced search" in cnki database: uterine dysplasia. From January 1964 to December 2018, a total of 505 literatures were retrieved.
In wanfang medical network database "advanced search" fill in: uterine dysplasia. From January 1956 to December 2018, a total of 446 literatures were retrieved.

2.2. Inclusion criteria
A clinical study on the treatment of uterine dysplasia by traditional Chinese medicine in combination with the experience in the use of traditional Chinese medicine. Duplicate literatures, basic studies such as cell and animal studies, reviews, theoretical discussions and other non-clinical studies were excluded. There were no specific drugs or single traditional Chinese medicine and other literatures.

2.3. Data processing
A total of 100 journal articles were preliminarily selected, and the basic formulae of 106 prescriptions in the literatures were input and processed. The name, classification, nature and taste of drugs are all unified with reference to the 2015 edition of the Chinese pharmacopoeia [5] and Chinese pharmacology [6]. SPSS Modeler 14.1 and SPSS Statistics 19.0 were used to analyze association rules and factors of the included Chinese medicines.

3. Results

3.1. Use of single traditional Chinese medicine
Above 136 kinds of traditional Chinese medicine, accumulative total frequency appears 1269 times. Among them, a total of 38 drugs were used with a frequency greater than or equal to 10, with a total of 995 times. The top five most frequently used herbs were angelica sinensis (84 times, 79.25%), rehmannia rehmannii (73 times, 68.87%), cuscuta chinensis (72 times, 67.92%), medlar chinensis (46 times, 43.40%) and epimedium sinensis (41 times, 38.68%). Use drugs with frequency greater than 1, as shown in Figure 1.

3.2. Use of drug efficacy classification
The 136 traditional Chinese medicines mentioned above (total drug use frequency 1269 times) cover 18 types of efficacy classification, and the most frequently used are: tonic for deficiency (803 times, 63.28%), invigorating blood circulation and removing blood stasis (169 times, 13.32%), wenli medicine (56 times, 4.41%) and qi regulating medicine (54 times, 4.26%), as shown in Figure 2.
3.3. Use of medicinal properties and odors
Among 136 kinds of traditional Chinese medicines, it can be seen that gan (937 times, 42.80%), xin (530 times, 24.21%) were the most common ones, and the drug temperature (691 times, 54.50%), ping (310 times, 24.45%) were the most common, as shown in Figure 3 and 4.

3.4. medication administration
Among 136 traditional Chinese medicines, liver meridian (11 times, 18.6%), spleen meridian (9 times, 15.2%), heart meridian (9 times, 15.2%) and stomach meridian (9 times, 15.2%) were the most common, as shown in Figure 5.
3.5. Analysis of high-frequency drug association rules [7]

To high-frequency medicines (using frequency>15), using the SPSS Modeler 14.1 software association rules analysis, and by using Apriori model further excavated compatibility relationship between drugs, set up the support degree was 30%, the confidence level of 90%, the largest number is referred to in the preceding paragraph 5, ascending or 1 condition such as digging out the potential drug combinations of commonly used formula, a total of core medicine of 14. Among them, antler glue was used as the core drug, and a total of 6 core drug pairs were obtained. The statistical results are shown in table 1.

Table 1. Antler glue as the core of the drug pair combination

| Medicine in combination                              | support | Degree of confidence | Mention of appreciation |
|-------------------------------------------------------|---------|----------------------|-------------------------|
| REHMANNIAE RADIX PRAEPARATA-CERVI CORNUS COLLA       | 16.82   | 83.33                | 1.22                    |
| ANGELICA Sinesis RADIX-CERVI CORNUS COLLA-REHMANNIAE RADIX PRAEPARATA | 14.02   | 80.00                | 1.02                    |
| REHMANNIAE RADIX PRAEPARATA-CERVI CORNUS COLLA-ANGELICA Sinesis RADIX | 12.15   | 92.31                | 1.35                    |
| REHMANNIAE RADIX PRAEPARATA-CERVI CORNUS COLLA-CUSCUTAE SEMEN | 11.22   | 91.67                | 1.34                    |
| REHMANNIAE RADIX PRAEPARATA-CERVI CORNUS COLA-CORNI FRUCTUS | 10.28   | 90.91                | 1.33                    |
| ANGELICA Sinesis RADIX-CERVI CORNUS COLA-CUSCUTAE SEMEN-REHMANNIAE RADIX PRAEPARATA | 10.28   | 81.82                | 1.04                    |

3.6. High-frequency drug factor analysis [8]

Factor analysis was carried out on high-frequency drugs (frequency of use was more than 15) with SPSS Statistics 19.0 statistical software, and it was concluded that the KMO statistic was 0.504, the Bartlet spherical test and the P value was 0.000. The principal component analysis method was used to obtain 9 components of the initial characteristic value >1, and the cumulative contribution rate of the factors was 64.962%. Among them, cornus officinalis, antler glue and Chinese yam were the factors F1, and the factor contribution rate was relatively high, reaching 11.170%.

4. Conclusion

Frequency analysis showed that the most frequently used drugs were angelica sinensis, rehmannia rehmannii, cuscuta chinensis, medlar and epimedium. Guijing to the liver, kidney, spleen meridian drugs mainly; Among the drugs, the main ones are tonifying deficiency drugs, activating blood circulation and removing blood stasis drugs, warming internal medicine and regulating qi
medicine. Statistical results visible association rules in order to angelica, rehmannia glutinosa, dodder, medlar support degree is relatively high, and the frequency of the single herbs statistical result, visible antler glue and toothachyranthes root, motherwort, cinnamon, desertliving cistanche, angelica, eucommia bark, dogwood, fructus ligustri lucidi correlation degree is higher, with antlers gel combined with angelica and rehmannia glutinosa support degree is relatively high. And factor analysis of nine common factor combination, dogwood, antler glue, yam with factor F1 (astringent medicine - virtual medicine - virtual tonic medicine) of the contribution rate is relatively high, and the obvious "tonify deficiency" medicine play an important role in Chinese medicine treatment of uterine dysplasia, clinical should focus on promoting blood circulation to remove blood stasis drugs used alone and its compatibility with temperature in medicine, clinical use of antler glue used may consider compatibility cornel with dysplasia of uterus and yam. Uterine dysplasia is a common clinical gynecological disease[9], and most doctors use traditional Chinese medicines (wen shen Yang, zi shen jing, yi shen qi) to treat kidney-deficiency type of uterine dysplasia [10]. Antler glue can be used to treat weakness and weakness, waist and knee pain, nocturnal seminal emission, avulsion, etc. In addition, there are new applications in anti-inflammatory and analgesic, activating blood circulation, inhibiting osteoporosis, brain edema, and cancer chemotherapeutic sequelae [11].

Through the statistical analysis of traditional Chinese medicine compound for the treatment of uterine dysplasia, antler glue in the treatment of single taste traditional Chinese medicine (TCM), has been one of the medium to high antler glue in the treatment of uterine dysplasia and often cooked rehmannia root, angelica, dodder, yam tonify deficiency such as drug combination, taste sweet, salty, warm and antler glue itself, belong to the kidney, liver, with the statistics of uterine dysplasia treatment principle is consistent, thus it can be seen in the treatment of this disorder, can reflect a larger role, but the current study of its efficacy in the disease of department of gynaecology research less, and by the support of statistical association rules, the antler glue support slightly low, Thus the clinical application of its relatively small, and the clinical syndromes of uterine dysplasia is relatively more, only for the primary symptom and clinical pharmacology research type kidney dysplasia of uterus, in addition to the liver, blood stasis and phlegm wet type caused by empirical uterine dysplasia, preparation methods and the related animal models slightly less [12], some scholars [13] receptors could damage the lining of the uterus, combined with ovarian secretion of the hormone receptor, which can lead to dysplasia of uterus; Or a certain proportion of intraperitoneal or subcutaneous injection of androgynous hormones caused by uterine dysplasia and other methods, which need to be further studied.

Acknowledgments
This work was financially supported by national international cooperation base (2016-65), tackling key scientific and technological problems in henan province (172102310612) fund and the Doctor foundation of henan university of traditional Chinese medicine (00104354-2018-6)

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