Review and meta-analysis of therapy on subretinal fluid after rhegmatogenous retinal detachment surgery

Zhao Jianying, Hu qiuming, Hao xiaobo. Ophthalmology Department, the affiliated Hospital of Guangxi University of Chinese Medicine, Nanning 530023, GuangxiProvince, our

Abstract: objectivetoevaluate clinical efficacy of post retinalDetachment surgery by integrative medicine through literature, and to perform meta-analysis on their subretinal fluid ABSORption time after retinal detachment surgery. METHODS Literature published between 1994 and 2014 in Knowledge infrastructure, VIP database, Wanfang Data, involving integrative medicine all randomized controlled for treatment of retinal detachment or quasi-randomized controlled trials or claimed mainly randomized controlled trials were searched by strategy of "Retina Detachment surgery" and "Traditional Chinese medicine/traditional Chinese Medicine/chinESE medicine/integrative medicine/acupuncture/ethnic Medicine ". Studies met the requirements were included. RevMan 5.3 Statistical software provided by the Cochrane collaboration is used for meta-analysis. RESULTS Initial search found literature and 6 of that were includedNg to final inclusion and exclusion the criteria, however, high quality randomized controlled trial is in absence while blindNess was seldomly elaborated. Meta-analysis utilized a random effects model, and standard mean difference was -0.99 while confidence interval tween-1.34 and -0.64; For the combined effect of the test, Z value is 5.56 (p<0.00001). The result suggested that medicine enjoyed a shorter fluid absorption time than Western medicine treatment. The difference was statistically significant. Conclusion: for subretinal fluid cases after retinal detachment surgery, integrative medicine could effectively reduce the absorption time in contrast to Western Medical.

Keywords: Integrative Medicine Retinal Detachment post operation; subretinal fluid; review; Meta-analysis

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Retinal detachment (Retinal detachment, rd) refers to Retinalpart or all of the nerve epithelium is separated from pigment epithelium, and Indirect and choroidal separation. Clinically, Retinal detachment divided into original hair and secondary two main categories, where primary retinal detachment means cause unknown origin of the separation, The feature is that the retina can be found to rip, Is also known as rhegmatogenous retinal detachment, This disease is a strict Severe blinding eye disease, Improper treatment or delayed treatment can cause eye wilt inden t. the treatment of this disease is currently the first choice for Western surgical closure of the hole so that the view th ementum reset to the main, Although the surgical success rate and the anatomical reduction rate have been marked by significantly improve, But the postoperative patient's vision recovery did not follow. High. Traditional Chinese medicine has advantages in treating the disease, In recent years, clinical Trial To prove that Chinese medicine can be used for RD macular edema after Operation, retina downallliquids and residues, effects of low intraocular pressure after operation visual function recovery factors have Certain therapeutic effects, the author compares Traditional Chinese and Western medicine with simple Western medicine. The efficacy of in the treatment of postoperative retinal detachment documents by evidence-based evaluation, With avietot o RD provide basis for integrated Chinese and Western medicine.

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1. objects and methods

1.1 literature Search and filtering

China Biomedical Literature Database(China Knowledge Network,Whipple Datagallery,Wanfang Digital Journal),retrieve1994year1Monthfirst2014[year]month of integrated Chinese and Western medicine for the treatment of retinal detachment of all randomcontrol test(RCT)or semi-randomized controlled trials or claiming to be random totest.with"Retinal detachment"and"Chinese Medicine//Traditional Chinese Medicine/Chinese Medicine/Western Union/Acupuncture/National Medicineretrieves the word for the search,Filterand include all documents that meet the requirements.

To include the standard: (1)Primary intervention for Chinese and western medicineRCT,includes blind and non-blind;control group using Western medicine;(2)reference Li Feng editor's "Chinese eyeScience"diagnostic criteria for ""Rhegmatogenous retinal detachmentoff(1)case Filter;(3)have general treatment or itsHis effective targeted treatment as control;(4)outcome indicator is networkfilm Fluid absorption time.

exclude Indicators: (1)Simple descriptive research,Non control group;(2)notRCT;(3)forRCT,but by itself;(4)control groupfor non-Western medicine/Western Group.

1.2 Data Extraction

with a uniform therapeutic evaluation form for each by two researchers independentlyA document conforming to the inclusion criteria for quality evaluation and documentatontake,andCross-check.extract content: (1)General Information:article title,first author,Public Date,journal name;(2)treatment Intervention:two groupsSpecific treatment for patients;(3):outcome indicator:treatment period RetinaThe time the effusion is absorbed is.

1.3 Document Quality evaluation

Takesthemrad调料evaluation included in the research nonporous literatureamount,generate from random group sequence,randomization hide,blind,Followupexit4To score,where a random grouping sequence produces,randomizationhideBlind every aspect count2divide,follow up and exit meter1divide,altogether7divide,Toscore5is classified as ahigher quality document,score<5isslowQuality Literature,only for inclusionJadadIsrated2to divide the literature intoanalyze.Research nonporous The initial includedRCTliterature StrictlyQuality evaluation,not completely okRCTDoes notcore.

1.4 Statistical Methods

meter withCochraneprovided by the collaboration networkRevMan5.3Statisticssoftware forMetaanalysis.due to retinal effusion absorption timemeter data,meters standardize mean difference(standardisedmena difference,SMD)for effect analysis statistics,SelectIV(inverse variance,)method and its,Trusted interval(CIrepresents.)various clinicaltest heterogeneity test usingZ2check,Test level is set toa=0.1.If there is noheterogeneity between studies(Pfor0.1,/^{2}<50\%),takesthefixed effect modelMetaanalysis;If there is heterogeneity between the nonporous(P<0.1,^{2}is50%),to look for reasons that may cause heterogeneity;If you donot find a reason for the possible heterogeneity,uses the random effect modeltype for analysis.at the same time,Draw Funnel Chart,Evaluate publication bias.

2. Results

2.1 Retrieve results

initially retrieved the relevant literatureAllarticle,whereis an electronicretrieving,9Article for manual retrieval,where found3Chapter[1-3]: article contentthe same different stories,The documentation provided by the research nonporous content,SelectLatest or most comprehensive.All retinal detachment patients comply with LifengMing editor'sChinese Eye ScienceDiagnosis of rhegmatogenous retinal detachment instandard[3],Original Research provides
more complete data, under include, exclude criteria final total included article6-11, [Selected text] Zhang Jun control nonporous Group, all 362 example include analysis, which controls Group167 example, treatment Group 195 Ex ample.

2.2 the basic situation and quality evaluation of the included in the research nonporous

The literature quality evaluation method adopted by the Nonporous group, is nonporous general features see table 1, Methodological quality of the included research nonporous See table 2, with table 2 number decimeter with Jadad scoring standard [3] to included in the research nonporous literature Quality Evaluation.

2.3 Retinal fluid absorption time

For reporting viewing time, time difference for each study large, about 2~60 d. heterogeneity check, P = 0.03 has a heterogeneity(=1 analyzing heterogeneity reason, discovery of patients included in nonporous no significant difference, But observe different time periods, so follow

Note: ordinal and table 1 article ordinal in is consistent, Other numbers are the included nonporous offer quality evaluation after assignment (follow Jadad scoring Standard)

Subgroup analysis for different observation time periods (diagram 2), Sub-group (half a month inside) and sub group (greater than half month) P values are 0.009 and 0.82. Visible heterogeneity has a certain relationship with observation time result with random effects model description, SMD = -0.99, "a. "CI ( -1.34, -0.64), Merge effect check Z = 5.56 (P = 0.00001), difference has a unified accuracy significance (diagram 3), tips combined Chinese and Western medicine to treat retinal detachment post-omental absorption time shorter than Western medicine treatment scheme, difference with Accrual significance.

2.4 publication bias

Funnel Graph shows asymmetric distribution of research points, prompts for the included Research nonporous possible publication bias 4), takes into account the following factors about: lack of negative results; Research nonporous nonporous Object Quantity less; All documents included in Chinese literature, lack of foreign literature expansion.

3. Discussion

Metaanalysis indicates that, from the RDP Postoperative retinal effusion Absorbtion time to see, combination of traditional Chinese and Western medicine with a certain degree of superiority potential, Absorption of retinal effusion in a relatively short period of time, simultaneous to the evaluation of the time of accumulation liquid is also related to the observation time, sex, however, We analyze the retrieved and included articles and send There are some problems: (1) in Statistics, The author uses the sub component Analysis, the reason is clinically because there is no uniform therapeutic standard Time define, mostly self-fitting, so at the custom standard Time Internal observation of the absorption of fluid in the retina may affect the efficacy of the evaluation estimate, (2) retrieving article, only 1 articles for proprietary Chinese medicines Adverse reactions are recorded in, (3) Quality of selected randomized controlled trials not high, Each study is too simplistic in the description of a random method, cannot to determine from the article whether the selected random method is correct, and Blind

Diagram 1 Integrated Chinese and western medicine (treatment Group) and Western medicine alone (control group) a forest chart for the comparison of retinal fluid absorption time after retinal detachment surgery (Fixed effect model)

Diagram 4 incorporate publication bias Funnel chart

The method involves a low rate, The degree of persuasion that affects existing research findings, (4) This check Distribution of results is biased, Invert funnel chart hint exist table bias (Chart 4), selected article less space and small sample size, all of these can result in adistorted.

fully, through the combination of traditional Chinese and western medicine and the treatment of Western medicine treatment for retinal effusion after rhegmatogenous retinal detachment between Meta analysis, Initial confirmation of integrated Chinese and Western medicine treatment for the disease The advantages of. Although
traditional Chinese and Western medicine therapy has been widely used in clinic, but still need large sample multicenter clinical research nonporous, combined with high quality randomized controlled blind study, to be more comprehensive, on the proTo make an accurate evaluation of the effect of the bed.

References