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香港 1/4 女性高度受週期問題困擾
紓緩經前綜合症新方向──葡甘露聚糖

群力企業有限公司(Rise and Shine Enterprise Ltd)委託香港大學民意研究計劃於 2008 年 8 月至 10 月期間進行《女性週期問題意見調查》，成功訪問過 501 位年齡介乎 18 至 45 歲的女士。調查的主要目的為瞭解本港女性的週期問題對她們的困擾程度，以及她們如何舒緩週期時的不適。

超過三成女性認影響日常生活

在 501 個成功受訪個案當中，約有四分一（26%）女性在月經時受到頗高程度的困擾；有超過兩成（22%）受訪女性認為對其學業及事業構成負面影響。除了經痛（34%）是最令女性困擾的週期性徵狀之外，情緒不穩及脾氣暴躁（23%）亦是另一個最令女性困擾的週期生理問題。有超過七成（73%）受訪者即使有各種週期性不適，仍未有向人求助，她們所持的理由是「沒有需要，覺得問題並不嚴重」。接近一半（46%）會嘗試食藥及以食物減輕徵狀，而當中 69%自行服用如止痛藥的西成藥。調查結果顯示，香港女性普遍對生理週期所引起的困擾並不重視，對「經前綜合症」的認識亦有所不足，以致每月皆受到身體及精神上的折磨。

經前綜合症的成因

女性在每月月經來臨前的 5 至 10 日，身體的變化，會令她們身心疲累，當中所出現的症狀便稱為「經前綜合症」，如腹部浮脹、腹部絞痛、便秘和因水份不足所引起的痔患、體溫上升、胸部鬆軟和脹大、胸部痕癢、感到壓力和焦慮、激憤、沮喪、胃口改變和食欲增加、性欲提升、入睡障礙、臼位和肌肉疼痛、頭痛、疲倦、粉刺或精神難於集中等。而在精神學上更有『經前煩燥不安症』的稱號，因為女性於經期前或期間會出現嚴重抑鬱、絶望感、憤怒、焦慮、提不起個人自尊、易怒和緊張等情緒失調問題。

醫學顧問陳世松教授謂：『雖然常見的徵象和症狀頗多，但大多數女性所經歷的只是少部份。然而，有部份婦女所經歷身體上的痛楚和精神上的壓力頗大，因而影響她們的生活起居和活動。在外國，由於西方女性對此問題持較開放態度，她們不介意公開討論問題及承認自己有此困擾，更有不少嚴重受困的女性需每個月向心理醫生求診。』

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引起經前綜合症的確實原因未明，或受多項因素影響所致。荷爾蒙的週期性改變是其中一個主因。因為經前綜合症的徵象和症狀隨荷爾蒙的波動而改變。腦部的化學變化也可能導致經前綜合症的出現。血清素的改變——一種腦部化學劑（神經傳送素）被認為是引發這些症狀的一個重要因素。血清素不足可以引起經期間抑鬱、疲倦、食欲增加及睡眠障礙等問題。在生理方面，由於經期前子宮會吸收大量水份以便排經，子宮壁會變得較平常厚幾倍。這亦解釋很多女性在經前會有腹部腫脹及疼痛的情況出現。

傳統紓緩經前綜合症的方法

藥物是傳統紓緩經前綜合症的方法，常用的有利尿劑(即去水丸)、口服避孕藥，利尿劑有助腎臟釋出過量水份，減低子宮吸水產生的腫脹，但長期及不正確服用除了有損腎臟功能外，又由於過量排走血液中如鈣及鉀等礦物質，構成肌肉鬆馳、骨質疏鬆甚至導致心臟病。而口服避孕藥會停止排卵並穩定荷爾蒙的波動，從而紓緩經前綜合症的症狀，但會令排卵停止並穩定荷爾蒙的波動，令身體誤以為處於「懷孕」狀態。

其他的藥物如抗抑鬱劑、非類固醇消炎藥、醋酸鹽(Medroxyprogesterone acetate)，也有機會導致一些副作用，如藥物上癮、食量增加、體重增加、 頭痛和情緒低落等。

紓緩經前綜合症新方向－葡甘露聚糖

葡甘露聚糖──葡甘露聚糖是蒟蒻(又名魔芋)的學名。蒟蒻是蒟蒻芋的地下塊莖，是一種天然的植物，屬多年生宿根性，塊莖草本植物，是中國古時醫書已有記載的草藥。

陳教授表示：『葡甘露聚糖具吸水功能，避免過多水份進入血液中，減少身體出現水腫；並含高纖維，防止進食的食物釋放過多水份；它同時減少脂肪酸和酒精吸收，從而阻止可導致體重增加的熱量積聚，直接減少因浮腫而覺「肥胖」的感覺。葡甘露聚糖可減少子宮在附近的腸道吸取過多水份，致子宮脹大、腸道缺水而引致便秘等經前綜合症現象。』

「一起和週期不適說 Good Bye！」大行動

有感於現今不少女性受著經前綜合症的困擾，群力企業有限公司(Rise & Shine Enterprise Ltd)的主席關雄生先生表示誠意邀請本港 100 名有此困擾，而又希望採用天然及健康方法以紓緩經前綜合症的女士參予「一起和週期不適說 Good Bye！」大行動。有興趣參加計劃的女士可於十一月三十日之前致電 PMS 好舒適熱線 28932115 登記。

－ 完 －

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GLUCOMANNAN KONJAC

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USDA United States Department of Agriculture

Konjac may be used to provide fat replacement properties in fat-free and low-fat meat products. USDA has accepted the use of konjac as a binder in meat and poultry products. Konjac is suitable for thickening, gelling, texturing, and water-binding. It is especially effective in emulsified meat products such as hot dogs and bologna, pepperoni, and summer sausage

- FDA approval as GRAS in the United States Konjac flour be affirmed as GRAS for use as food ingredient
  Listed on FCC(Food chemical codex), the 4th edition 1996 USA
- Approved by the EU = L295127, E-425
  Listed under E425, Annex V, food additives, 1998, EU
- Health Canada approved as a food ingredient in Canada

Glucomannan

Description

Glucomannan is a dietary fiber derived from tubers of the Amorphophallus konjac plant, commonly referred to as the konjac root. It is grown primarily in the tropical, sub-tropical and temperate zones of Asia. The tubers of the konjac plant contain large amounts of mannan, known as "konjac mannan" or glucomannan. Glucomannan is an unabsorbable poylsaccharide, composed of glucose and mannose, in 1:1.6 ratio, bound through beta-1, 4-glycosidic linkages.

Glucomannan has been consumed in the Orient, particularly Japan, for at least 1,000 years. Recent interest in glucomannan fiber comes from the public's increased awareness of the effects of high fiber diets on health problems, such as diabetes, postprandial hypoglycemia, hyperlipidemias (e.g. high cholesterol levels), various gastrointestinal disorders, some cancers and obesity. In response to consumer interest, a number of suppliers now provide konjac glucomannan products in powdered, tablet or capsule forms. Some products are up to 60% pure glucomannan.

Glucomannan is a dietary fiber with much stronger gel-forming properties than either pectin or guar gum. Glucomannan holds the advantage of being tasteless and not sticking to the palate when eaten, which are common drawbacks of using other gel-forming dietary fibers such as pectin. Glucomannan species vary in their gel-forming activity. For example, the Shina-shu (Chinese species) harvested in the Gumma Prefecture in Japan, has more activity than the Zairai-shu (Japanese species), harvested in either the Saitama Prefecture or Fukushima Prefecture of Japan.

Method of Action

Glucomannan and other gel-forming fibers interfere with the motility and absorption of nutrients from the gut. One gram of glucomannan expands in volume and will absorb about 100 milliters of water in vitro. However, the inhibitory effect of dietary fiber on gastric emptying has been shown in some, but not all studies. Nevertheless, studies in rats have shown glucomannan gels around the food particles, interfering with the action of digestive enzymes and thus slowing the rate at which sugars and fats enter the blood stream.

It has been suggested fiber modifies gut hormone response, as already demonstrated for GIP and suggested for glucagon. Fiber can also directly affect fat and protein metabolism.

Glucomannan seems not only to affect energy intake but also energy expenditure, since it reduces postpandrandial thermogenesis significantly. Studies suggest simultaneous changes in postprandial hormone response and in substrate metabolism may contribute to the effect of fiber on postprandial thermogenesis.

Therapeutic Approaches

Postprandial hypoglycemia

Glucomannan has been shown to lower postprandial ("after eating") blood glucose concentrations in healthy subjects and those with type II diabetes. In studies on normal subjects given glucose loads, it has been shown that 5 grams of glucomannan can be beneficial, depressing plasma glucose levels and the insulin response. Its usefulness in the management of type II diabetes is thought to be due to glucomannan's ability to slow stomach emptying, modify responses of gastrointestinal hormones and delay glucose diffusion in the intestinal lumen.

About 10 to 20% of patients with previous gastric surgery suffer from dumping syndrome. Such patients suffer from reactive hypoglycemia several hours after a meal. The symptoms include a feeling of warmth, sweating, shakiness, dizziness and difficulty breathing. These symptoms can be prevented by ingestion of frequent small meals and supplementation of the diet with alpha-glycoside hydrolase inhibitors or gel-forming dietary fibers. This benefit was demonstrated in small animals and humans. Double-blind, placebo-controlled hospital studies of gastrectomized patients have shown that small amounts (5.2 grams per meal) of glucomannan may be beneficial to ptients with reactive postprandial hypoglycemia, without the disadvantage of being unpalatable or causing carbohydrate malabsorption. By comparison, pectin, which is generally poorly tolerated because of poor taste and adherence to the palate, requires 14.5 grams per meal to be equally effective.

Diabetes

Dietary fibers are effective in the treatment and management of diabetes. Until research was done on glucomannan, guar gum (galactomannan) was the most effective fiber for reducing blood sugar levels in diabetics. However, glucomannan was found to not only reduce the need for insulin or hypoglycemic agents, but to also lower serum cholesterol levels over 10% by the end of three weeks. Similarly, reductions in blood glucose levels (7.3% at 30 minutes) and serum insulin (13% at 30 minutes) were observed in healthy men given 2.6 grams of glucomannan daily.

Hypocholesterolemic agent

The Shina-shu species of glucomannan has been shown to cause significant decreases in plasma cholesterol levels as compared to controls in laboratory animals. This effect was strain specific, since some konjac root strains were found to have little or no cholesterol lowering effect.

Similar effects were reported in humans in three other studies. In one study elderly subjects reported a 23 mg/dl drop in serum cholesterol over a two week period while on glucomannan. A second study found a

21.7 mg/dl drop in serum cholesterol (and a 15.0 mg/dl drop in low-density lipoprotein cholesterol) levels in obese subjects within a four week period. The third study showed a 11.2% drop in serum cholesterol in diabetic patients within three weeks of daily supplementation with 3.6 grams of glucomannan. Glucomannan is thought to owe hypocholesterolemic ability to its binding and subsequent removal of bile through the feces.

Obesity and Weight Management

Glucolannan supplements are becoming important agents for weight control.

Twenty obese subjects were given one gram of glucomannan with 8 ounces of water, one hour prior to each of three daily meals. Results from this double-blind placebo-controlled study showed a significant mean weight loss of 5.5 pounds over an 8-week period. Serum cholesterol and low-density lipoprotein cholesterol (LDL) levels were also significantly reduced in the glucomannan treated group, but not in the control group. No adverse reactions were reported by these subjects.

However, in Australia, seven cases of esophageal obstruction have been reported by doctors seeing patients who took glucomannan for weight management. These cases were probably due to the inappropriate use of the glucomannan powder as a dietary supplement.

In Japan, where millions of people eat konjac root as a food, no such adverse reactions have been reported because their traditional method of ingestion requires the gel to be allowed to expand before ingestion. In the case of glucomannan powders, this expansion may only begin once the product is inside the gastrointestinal tract, with the potential for obstructing the passageway.

Drug interactions

Glucomannan may slow gastric emptying, thus resulting in the decreased absorption of some drugs.

Glucomannan Is Useful in the Treatment of Diabetes

Glibenclamide (a sulfonlyurea) is one of the most extensively-used hypoglycemic drugs.

In a controlled-study, patients were given 3.9 grams of glucomannan powder to see what effect, if any, glucomannan might have on the intestinal absorption of glibenclamide. Oral administration of glucomannan decreased plasma glibenclamide levels by more than 50% in comparison to levels in controls. This may suggest glucomannan adversely affects absorption of glibenclamide and possibly other drugs.

Toxicity Factors

Konjac glucomannan may reduce fat-soluble vitamin absorption while removing bile acids in humans. The absorption of vitamin E (alpha acetate) was reduced following administration of glucomannan. However, glucomannan did not interfere with the absorption of water soluble, fat-insoluble vitamin B-12 (mecobalamin).

There is some concern the effect of glucomannan on transit time of carbohydrates may influence the bioavailability of minerals. For example, in one study measuring the effect of unavailable carbohydrates on the intestinal absorption of calcium in rats during a 7 to 8 week period, calcium absorption was compromised by nearly 20%. This compromise was partially due to the loss of calcium-binding protein caused by the gastrointestinal transit of large amounts of undigested food.

Seven cases of esophageal obstruction caused by adding glucomannan to the diet have been reported. This occurs because glucomannan can absorb great amounts of water and expand at a rapid rate after consumption. Obstruction of the esophagus has also been reported by those using either guar gum or bulk laxatives. In the case of guar gum or bulk laxatives, most reports were from elderly patients. However, in the case of glucomannan, most of the complaints were much younger patients.

Although konjac root has been used for centuries by the Japanese, they have not reported the occurrence of similar problems, probably owing to the fact that glucomannan is allowed to expand before ingestion.

It is also noteworthy that glucomannan has been given to children with dumping syndrome in a hospital study. This study determined that glucomannan was not suitable for dumping syndrome in all children, because of side effects. Contrarily, three out of four children had considerably more complaints during one of the glucomannan trial phases.

There has been no report of subacute or acute toxicity (LD50) toxicity induced by glucomannan.

Abstracts

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陳世松教授背景

陳世松教授是 Oregon Health and Sciences University (前身爲 University of Oregon Medical School)的退休醫學院皮膚教授。陳教授專門研究皮膚分子醫學及基因環境健康與毒理學。他擁有美國理學士、哲學博士、醫學博士學位和醫生執照。於 2001 年提早退休並專門研究分子皮膚學、環境健康和環境毒素因子學。更展開對生物工藝學及納米技術對環境健康及皮膚學的研究及發展。

陳教授始於 1999 年，在本港成立兩間環保公司，分別爲 Environmental Care Company Ltd 及 Acumen environmental Engineering Company Ltd。另也成立陳世松 Pharmaceutical Consultancy Company Ltd。公司主要是爲香港及中國大陸提供環境健康、環境工程及皮膚藥理學的顧問服務。陳教授現任 **JaneClare** 有限公司的董事及行政總裁。**JaneClare** 有限公司是一間以研究配方爲基礎、物理測試中心及專業皮膚治療中心。陳教授更是 Oregon-based CRO-facility, Pharmacological Challenges, Incorporated, based in Portland Orgeon 的創辦人及現任主席。

陳教授爲香港大學、香港科技大學及香港理工大學的教授。陳教授更是前美國白宮的科學顧問，可見他在醫學方面的成就和肯定。此外，陳教授亦擔任香港大學教育資助委員會的顧問及數間政府管轄的藥理及藥物顧問。

陳教授不僅是一位皮膚醫生，更是皮膚學研究員，多年來陳教授在皮膚學上也發表多份包括環境毒素的文章，並且在多份主要的國際定期刊物發表皮膚的臨床試驗。

Bio of Professor Sai Chung Chan, MID PhD.

Professor Sai Chung Chan, MID PhD. – was a Professor of Medicine at the Oregon Health and Sciences University (formerly, the University of Oregon Medical School) specializing in molecular Dermatology and genomic Environmental Health and Toxicology. He holds Bachelor of Sciences, Doctor of Medicine and Doctor of Philosophy Degrees. He took an early retirement from the appointment of the Oregon State Board of higher education in 2001 and has since then been pursuing biotechnology-and nanotechnology-based business developments in both the environmental health and the dermatology-based pharmaceutical (Skinceuticals) industry sectors.

Professor Chan was the founder of two environmental companies in Hong Kong since 1999, Environmental Care Company Ltd and Acumen environmental Engineering Company Ltd. as well as Sai C Chan Pharmaceutical Consultancy Company Ltd. The companies serve environmental health consultancy, environmental engineering as well as skin-based pharmacological business development respectively in Hong Kong and Greater China, He is currently the director and CEO of Jane Clare group Limited in Hong Kong, a skin-care company with a research-based formulary and CRO-testing center as well as professional skin treatment center. He is also the founder and current chairman of an Oregon-based CRO-facility, Pharmacological Challenges, Incorporated, based in Portland Orgeon.

In Hong Kong, Professor Chan holds professor-ships with the University of Hong Kong, Hong Kong University of Science and Technology as well as the Hong Kong PolyTechnic University. Professor Chan has served as science advisor at the Clinton's White House as well as the FDA in US. Professor Chan has also served as consultant for Hong Kong's UGC as well as several governmental pharmacological and medical consultancies.