

医学论文英语 摘要写作指导



上海外语教育出版社

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内 容 提 要

本书帮助读者学会撰写医学论文英语摘要,并提供各种摘要句型和用词。本书以对英、美国家几十种有名的医学杂志里的摘要研究为基础,结合我国医学论文英语摘要作者易犯的错误,从文体、篇章结构、句型及用词等方面进行分析、归纳,得出若干写作方法。书中配有练习,附录中列有句型实例和练习答案两部分。本书可供广大医务人员、医学科学工作者以及医学生、研究生等学习使用,也可作为他们写作时的参考。

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前 言

不少人有这样一种误解,似乎英语论文摘要很容易写,只要将英语语法、词汇加上翻译技巧就可以做出好文章。其实不然。作为一种专门的文体,英语摘要要有它自己与众不同的特点和风格。正象一般人不一定都知道如何写公文、简报一样,仅仅具有一般英语知识和写作能力的人是写不出出色的摘要的。作者有机会帮助医学科技人员修改他们论文的英语摘要,发现初学者除常犯语言方面的错误外,更多的是由于不熟悉英语摘要写作的特殊要求,因而写出的东西常常是中文文情的呆板翻译和僵硬转述,缺少主旨明确、文体简短、用词洗炼准确等特色。

为帮助中、青年医学科学工作者迅速掌握这门技能并在写作时有一本基本参考书可资查阅,特编写了这本书。它不拘泥于一般英语写作论著的模式,而是从实际出发,研究总结英语摘要在文章结构、文体、句型及用词等方面与中文摘要的不同,结合我国摘要作者易犯的错误,指出纠正和避免的办法。

本书初稿编出后,曾在若干单位作过演讲,博得一定的好评。作者所在单位的领导、同事和同学们给予热情的鼓励,上海外语教育出版社支持出版,特别应该提到的是上海胸科医院胡德培医生对书稿作了详尽的审阅,并在文字上作了许多修改、润饰,在此特向他们深表谢意。

鉴于作者学识所限,资料有限,自知尚有不少缺点和不足之处,敬请读者不吝赐教,多加指正。

王重沧

1985.3

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1. 概 述

过去我们往往把医学论文的摘要称为总结, 放在论文的**最后**; 近年来称为**内容提要**, 放在论文的最前面。英美等国出版的医学期刊一般都把摘要放在论文的前面, 用不同于正文的字体来加以区别, 如美国的 *JAMA* 和加拿大的 *Canadian Journal of Biochemistry* 等; 或称摘要为 *Abstract*, 如美国的 *Cancer Research*、英国的 *British Medical Journal*、*The New England Journal of Medicine* 等; 有的杂志则称摘要为 *summary*, 放在论文的后面, 如美国的 *Journal of Asthma* 等; 也有把摘要放在文章的前面而称 *summary* 的, 如 *The British Journal of Surgery* 等。

2. 英语医学论文摘要的篇幅和内容结构特点

从篇幅和内容结构上讲, 英语医学论文摘要具有要求简短、完整、明确、精炼这四个特点。

2.1. 简短

医学论文摘要的篇幅要短。作者曾对发表在 *Cancer Research*、*JAMA*、*British Journal of Surgery* 等比较有名的

医学期刊中的126篇摘要作了调查,发现85%的摘要都在300个单词以下,500单词以上的几乎没有。因此我们在写英文摘要时,词数最好控制在300个以下,最多不要超过500个。当然,这是指一般而言。事实上,篇幅的长短应视论文性质不同而异。作者在调查中发现,资料性的论文摘要由于不仅要介绍实验内容,还要介绍材料、方法和实验结果中的一些重要数据,因此相对可以偏长一些;而陈述性的,因为仅须向读者介绍论文的研究内容,所以可偏短一些,甚至只用包括十几个单词的一句话就够了,例如:

- (1) Two unusual cases of artificial tenodesis in the hand, both involving penetration injuries, are reported.

— *Contemporary Orthopaedics* 1981 —

本文报告了两个均为穿透伤的手用人工腱固定术的罕见例子。

- (2) A review of recent changes in anterior chamber lenses and a discussion of the advantages of these lenses in both intracapsular and extracapsular cataract surgery are presented.

— *Ophthalmology* July 1979, p. 29 —

本文综述了前房镜片近来的变化并讨论了这种镜片在囊内和囊外白内障手术中的优点。

练 习

1. 试按陈述性摘要的要求删节以下摘要:

This paper reports on the problems faced by adolescents who have been burned during childhood and discusses the factors pertaining both to the child and to parental handling which contribute to a good adjustment following injury. The study

was undertaken in the Burns Research Unit at the Royal Children's Hospital in Melbourne. Sixty patients and their parents were interviewed at home by the research workers. It was found that 11 of the 18 patients achieved successful rehabilitation and 6 did not. Recommendations are made for additional ways in which the hospital programme can be amended so that these problems can be minimized.

2. 删去以下摘要中的划线部分, 比较两种写法的优劣:

Extracorporeal circulation for cardiac surgery has been associated with impaired glucose tolerance. The present study was designed to determine the effect of pulsatile flow on glucose tolerance during cardiac surgery. Twenty patients were divided into two equal groups; ten patients receiving nonpulsatile bypass and the remaining patients receiving pulsatile flow. All patients received an identical anesthetic protocol consisting of pentobarbital 100 mg h.s. and morphine sulfate 10-15 mg at 0645 hours the day of surgery. Arterial samples were drawn for complete blood count, electrolytes, serum glucose and plasma insulin. Calculated systemic resistance is graphed in figure 3. Patients receiving pulsatile flow had significantly lower systemic resistance in the intensive care unit. Glucose determinations are illustrated in figure 2. Glucose tolerance, however, was similar in both patient groups. Insulin secretion which is graphed in figure 1 was impaired and serum glucose remained elevated throughout the period of extracorporeal circulation. We conclude from this study that glucose tolerance is unaffected by pulsatile flow.

2.2. 完整

完整就是要有头有尾、自成篇章而不能支离破碎。一篇

典型的摘要包括四项内容: (1)背景、内容和目的; (2)材料和方法; (3)结果; (4)讨论。下面这篇摘要, 它的四个自然段落分别代表了上述四项内容:

Several lines of investigation point to differences in electrical properties between normal and cancerous cells. Several tumor lines have low-resting membrane potentials. A few comparisons have been made between normal and tumor cells within the same tissue cell type. This study compares the cellular or transmembrane potential of hepatocytes and fibroblasts in both normal and tumor cells.

High-impedance micropipets were used to record intracellularly in vivo in Buffalo rat hepatocytes and Morris 7777 hepatoma cells, as well as A/J mouse corneal fibroblasts and poorly differentiated fibrosarcoma cells.

Rat hepatocytes had a mean membrane potential of -37.1 ± 4.3 (S. D.) mV compared to -19.8 ± 7.1 mV in the hepatoma cells. Mouse corneal fibroblasts measured -42.5 ± 5.4 mV, while cells of mouse fibrosarcoma were -14.3 ± 5.4 mV. The membrane potentials of the tumor cells were lower in both instances than in their normal counterpart (statistically significant at $p = 0.001$ for both tissue cell types).

This supports the notion that lower cellular or membrane potentials may play a significant role in the altered physiology of the tumor cell.

—*Cancer Research* 1980; 40: 1830 —

多方面的研究表明, 正常细胞和癌细胞之间存在电特征的差异。许多肿瘤细胞株都有低静止膜电位。同一组织细胞类型的正常细胞和肿瘤细胞之间已作过一些比较。本文比较了正常的和肿瘤的肝细胞与纤维母细胞的细胞电位, 即跨膜电位。

用高阻抗微型吸液管在 A/J 小鼠角膜纤维母细胞和低分化纤维肉瘤细胞中,也在 Buffalo 大鼠肝细胞和 Morris 7777 肝癌细胞中作了体内细胞内记录。

大鼠肝细胞的平均膜电位是 -37.1 ± 4.3 (S. D.) 毫伏而肝癌细胞的膜电位是 -19.8 ± 7.1 毫伏。在小鼠角膜纤维母细胞里测到 -42.5 ± 5.4 毫伏,而小鼠纤维肉瘤里有 -14.3 ± 5.4 毫伏。两种情况下肿瘤细胞的膜电位比同样组织正常细胞均低 (两种组织细胞类型统计学上相差显著 $P=0.001$)。

这项研究说明细胞或膜电位的降低可能在肿瘤细胞发生变化的生理学上起重要作用。

摘要完整性的另一个要求是不能漏掉重要的信息,下面摘要的写法似乎显得过于简单:

Ovarian cystectomies were performed under acupuncture anesthesia. The anesthetic effects were either satisfactory or excellent. The enhancing of the effects was achieved by additional acupoints. Ways to solve individual variation are discussed.

应用针麻进行卵巢囊肿切除术获得了成功和优良的效果。针麻效果的提高是通过增加穴位数取得的。文章对解决个体差异的方法进行了探讨。

这篇摘要未阐明手术做了多少例,结果的成功率和优良率各占百分之几,术中增加什么穴位点等。一篇资料性的摘要缺少这些重要内容就不够完整了。

练 习

1. 研究以下这篇摘要的完整性并划出摘要中的四项不同内容:

The timely dissemination of new medical information to the practicing physician has been identified as a problem. To examine the magnitude of this problem and useful strategies

for correction, we surveyed primary care physicians to determine their knowledge of the Hypertension Detection and Follow-up Program, a recent clinical trial with important treatment implications. Forty percent of family physicians (44/110) were aware of the study within two months of publication, and 63% of internists (114/182) learned of it within six months. Eighty percent of the family physicians and 50% of the internists listed medical journals as the source of their knowledge, while 40% of the internists learned of it from continuing medical education (CME) courses. These findings indicate that rapid dissemination of new information can occur when relevant journals are used and that CME courses also provide a timely and effective means of dissemination.

1. 从下文1, 2, 3中选择恰当内容填空并比较填写前后两篇摘要在完整性方面的差别:

To evaluate the risk of deep vein thrombosis, a clinical and phlebographic examination was performed _____. Phlebography revealed a symptomatic calf vein thrombosis _____. _____ phlebography was repeated after six weeks, and complete regression of the thrombi was noted. These results indicate a low incidence of thrombosis after knee meniscus extirpation.

- 1) in two of these
- 2) in three patients
- 3) 7 to 16 days after a bloodless knee meniscus operation in 37 male patients aged 20 to 35 years

2.3. 明确

保持完整性的摘要的四大内容, 必须象公式那样明确地

顺序排列、平铺直叙，使人一目了然。为了使层次更加清楚，甚至还可按照：背景、内容、目的→材料、方法→结果→讨论的次序，在各段内容前加上1、2、3、4等。例如：

1. The reduction in the sympathetic efferent discharge observed after propranolol may be due to either a central or peripheral effect. The β -adrenoceptor blocking drug, atenolol, is not thought to enter the brain and therefore any reduction in the level of sympathetic efferent discharge observed after atenolol is likely to be mediated peripherally rather than centrally.
2. Cats were anaesthetized with α -chloralose and artificially ventilated and a number of variables known to affect the sympathetic nerves were monitored throughout the experiment and maintained within normal limits. Recordings were made from few fibre preparations from the lumbar trunk and the renal nerves. Blood pressure was either raised or lowered by the injection of phenylephrine (1-4 $\mu\text{g}/\text{kg}$) or glyceryl trinitrate (2-20 $\mu\text{g}/\text{kg}$) and the sympathetic efferent discharge was recorded over a range of blood pressures when the blood pressure was steady.
3. Thirty min. after giving atenolol (3 mg/kg), the blood pressure, heart rate and sympathetic efferent discharge were significantly reduced. Atenolol also attenuated the reflex responses of the sympathetic nerves to changes in the blood pressure.
4. It is suggested that atenolol has its actions on sympathetic nerves at a site outside the CNS and some possible mechanisms are discussed.

— *British Journal of Pharmacology* 1981; 73: 609 —

1. 使用美心安之后,交感输出放电的减少可能是由于中枢或末梢效应的结果。 β -肾上腺受体阻滞剂氨酰心安据说不进大脑血管的,因此观察到的交感输出放电水平的下降可能是受到末梢而不是受中枢的调节。
2. 用 α -氯醛糖对猫施行麻醉并用人工方法呼吸,在整个实验过程中对一些影响交感神经的变化进行监测并保持在正常限度之内。在腰干和肾脏神经中的少数纤维细胞中均作记录。通过注射脱羟肾上腺素(1—4 微克/公斤)或三硝酸甘油酯(2—20 微克/公斤)使血压升高或降低,待血压稳定后,记录一段血压范围的交感输出放电。
3. 用氨酰心安(3 毫克/公斤)30分钟后,血压、心率和交感输出放电均明显降低。氨酰心安也削弱了交感神经对血压变化的回流反应。
4. 本文提示:氨酰心安是在中枢神经系统以外的某个地方对交感神经起作用的。文中讨论了某些可能的机理。

练 习

1. 将下列内容编成一篇摘要:
 - a) The results suggest that different blood lipoprotein fractions may influence the activity of the antithrombin III molecule.
 - b) Specific antithrombin activity in plasma showed a negative correlation with triglyceride levels. The consumption of antithrombin activity during blood clotting was negatively correlated with both serum total triglyceride and heparin precipitable lipoprotein and positively correlated with serum high density lipoprotein cholesterol.
 - c) Plasma and serum antithrombin levels were measured in functional (initial rate measurement) and immunological assays together with serum lipid levels in normal subjects

and patients with coronary artery disease.

2. 将以下摘要按内容分段并给各段编上序号:

Several human studies have shown an inverse relation between vitamin A intake and cancer. Serum cholesterol concentrations have also been reported in inverse relation to cancer. In a study of 3102 people in Evans County, Georgia, who were followed for over 12-14 years to assess the incidence of cancer there was an inverse association between the risk of cancer and both serum retinol and serum cholesterol concentrations. The data also showed an unexpectedly strong correlation between serum retinol and total cholesterol concentrations. The inverse relationship with cancer was stronger with serum retinol than with cholesterol. We conclude that the association with cholesterol might be secondary. Further studies of the relation between serum concentrations of cholesterol, retinol, and carotene and the incidence of cancer are needed.

2.4. 精炼

编写摘要时, 内容的选择须根据论文性质的不同而进行取舍, 不必要求每篇都4项内容俱全(参阅2.2.)。因为有些摘要往往不需要阐述背景和目的, 开头便介绍实验的材料和方法。例如:

Celestin tubes have been used in two groups of patients with advanced benign oesophageal strictures....

— *British Journal of Surgery* 1980; 67: 506—

对两组晚期良性食管狭窄病人使用了 Celestin 管.....

还有些摘要可能不需要介绍实验结果, 只要谈谈背景和讨论即可。例如: