

Medical Terms Involving药【yào】 Morpheme in Modern Chinese Language

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Abstract--- For Chinese speakers understanding medical terms, due to their descriptiveness, is not so difficult. The most difficult thing is actually translation medical terms into their native language. Chinese medicine is divided into traditional 中医 and Western 西医. This article discusses Western 西医 medical terminology with the participation of morpheme 药【yào】. The main attention was paid to the hieroglyphs in the abbreviated spelling (putonghua). Despite this, to explain the etymology of the hieroglyph an analysis of the full outline of the character 药 was carried out along with some features of medical terms word formation with the participation of morpheme 药, such as 1) phrasing 2) affix word 3) the formation of terms by reduction.

Keywords--- Medical Terms, Hieroglyph, Morpheme 药, Western Medical Terminology.

I. INTRODUCTION

A range of publications are devoted to the translation and explanation of the terms of traditional Chinese medicine (中医). There are reference books and textbooks describing the words or concepts of Chinese traditional medicine. But it is very rare to find articles that cover Western medicine in translation literature. There are a small number of dictionaries, of which we have not seen a single explanatory medical dictionary [1].

For anyone who speaks Chinese, understanding medical terms, due to their descriptiveness, is not so difficult. The most difficult thing is actually translating medical terms into their native language. As translation theorists would say, there are difficulties in transforming semantic fields. In our opinion, this is due to the fact that most medical terms in Uzbek, Russian were created on the basis of Latin or Greek. Unfortunately, We never studied Latin.

II. THE MAIN RESULTS AND FINDINGS

For writing this article, we were guided by two principles. First of all, this is the etymology of the hieroglyph 药, which we tried to analyze in its original meaning. From our point of view, this allows not only to understand correctly, but also to “feel” the Chinese language. Secondly, we will analyze some features of the word formation of medical terms with the participation of the morpheme 药. And also we will try to explain the meaning of some medical Russian terms descriptively [2].

Chinese medicine is divided into traditional 中医 and western 西医. In this article, we will consider 西医 Western medical terminology. The main attention was paid to the hieroglyphs in the abbreviated spelling (putonghua). Despite this, to explain the etymology of the hieroglyph, we conducted an analysis of the full outline of

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the hieroglyph药. We want to emphasize that in this article we will only dwell on the analysis of one morpheme药。

Hieroglyph 药【yào】 - happy angelica, has 4 main conceptions

药. I. (【yào】) 1. 药品. 亦指火药. 如: 火药; 弹药 2. 治疗. 3. 毒杀. 4. 芍药的简称.

I. (读音【yuè】) 药

In modern putonghua, an abbreviated hieroglyph药【yào】 replaces the full character藥【yào】, which "consists" of 艹【cǎo】 "herbs" - on top and 樂【lè】 "happiness" - from below. This can be interpreted as "grass bringing happiness". In abbreviated form药, the lower part of the character is represented by a phonetic 约【yuē】 [3].

If we look at the 4 meanings of this character, we will see that in full outline藥【yào】 also meant: 芍药【sháoyào】 *Paeonia albiflora* Pall. Sin. *Paeonia lactiflora* Pall., which translates into Russian as White-flowered Peony.

In the form of tea or a decoction, Peony in Chinese medicine is used as a painkiller and anti-spastic (against smooth muscle spasms). It is used for spastic colitis, gastralgia and pain in the abdomen. As well as a sedative and milk-based remedy (a remedy for "female" diseases). Eliminating pain, Peony "brings happiness".

In order to effectively treat, you need to know the exact dosage. This applies to all Peony preparations for internal use. If the required dose is exceeded, this can cause toxic reactions up to poisoning. It becomes clear why in modern language the hieroglyph药【yào】 may also be used in the sense of 毒杀【dúshā】 "poison".

More broadly, 药【yào】 can mean药品【yàopǐn】 "chemical reagents". Such as火药【huǒyào】 gunpowder or弹药【dànyào】 "ammunition" [4].

Despite the fact that in modern putonghua, the abbreviated spelling药【yào】 fully includes the meaning of the full藥【yào】, the abbreviation owes its origin to the name of the medical plant药【yuè】 Daudnik (*Angelica dahurica* Fisch). In Chinese medicine, the root of the plant is used as a hemostatic and analgesic. Assign for pain with vasospasm and neuralgia. Applied in the form of ointments. Another "plant that brings joy". A plant that brings relief [5].

Let's consider some ways of word formation of medical terms involving morpheme药.

1. Phrasing as a way of forming medical terms. Compounding is one of the oldest word formation methods inherent in almost all languages of the world. In Chinese, phrasing is the main way of morphological word formation, because words in it are single morphemic in their initial form, therefore, affixless word formation is productive. Compounding is the formation of new words by combining in one word two or more words or the foundations of words. As a result of compounding complex words are formed. Chinese has more complex words than other languages.

Consideration of the word-formation process will most correctly begin with its main components, i.e. words and morphemes.

The word is the basic unit of the Chinese language, which is in close relationship with such concepts as syllable, morpheme, hieroglyph. In Chinese, isolating a word and restricting it from a morpheme is very difficult, because in it “there are almost completely no significant morphemes that cannot act as a monosyllabic word”. The division into morphemes coincides with so grafting and almost all morphemes have semantic significance. This allows them to be part of different words, but unlike a word, they are not syntactically independent, which puts them in a system of units of a level different from the level of the word system [6].

The word in a purely structural sense consists of root and affix morphemes, which, depending on their functions, are divided into inflectional morphemes and word-forming morphemes.

The difference between a morpheme and a word is most pronounced when it is included in a compound word, but as a part of a monosyllabic word, a morpheme, as a rule, does not differ from it [7].

In terms of composition and structure, Chinese words are divided into simple, complex and derivatives. Simple words are syntactically independent and express a certain concept. N.N. Korotkov noted: “Some simple words should also include a part of two-syllable words, which cannot be decomposed into meaningful components due to unclear origin, as well as phonetic borrowings”.

Derivative and monosyllabic terms are not widely distributed due to the ambiguity of the uniqueness of monosyllabic words. Some old words of monosyllabic words are not syntactically independent, they are used only as components of complex and derivative words [8].

Compound words consist entirely of root (significant) morphemes. In connection with the growth of terminology, the number of more than two-syllable words is growing. Consequently, the two-syllable (two morphemic) word norm dominates.

Words of the Chinese language are formed from existing words, roots, affixes in the language. Words are created according to certain models as a result of applying the word-formation method inherent in the Chinese language.

Word formation of medical terms can occur in three areas: 1) compounding; 2) affix word formation; 3) the formation of terms by reduction.

The first way to formulate medical terms with the 药 morpheme is phrasing (成分结构-chéngfēnjiégòu), which in Chinese is the most productive way to form new words. This is due to the fact that almost every syllable in Chinese is a significant morpheme that can make up new words according to syntactic rules.

For instance:

喉结 hóujié- thyroid cartilage (Adam's apple) [喉 hóu- larynx + 结 jié- knot];

乳房 rǔfāng- breast (乳 rǔ- milk + 房 fāng- house, building, room).

At the same time, morphemes take part in the process of word formation, which can be independent words and which currently do not function independently:

风媒fēngméi- anemophilia (风fēng "Wind" is independently used in Chinese, and媒 méi "Intermediary" is not used independently);

月经yuèjīng- menstruation (月yuè "Month" is independently used in Chinese, and 经jīng "pass through" is not used independently) [9].

If the phrase is the main mechanism of word formation in the Chinese scientific and technical language, it becomes clear why the new word takes the form of expression in the form of neologism based on the addition of two or more free morphemes that already exist in the lexical system.

韧带rèndài- a bunch (韧rèn- viscous and带 dài- belt, ribbon, literally "viscous belt, viscous tape");

毛孔máokǒng- pores (毛máo- small and孔 kǒng-hole, literally "small holes").

Lu Zhiwei in the monograph "Word formation in Chinese" identified five structural models of word formation, built according to a certain type:

1. noun + noun:

肾亏shènkūi- kidney deficiency (肾shèn- kidney + 亏 kǔi- deficiency);

2. verb + noun:

裂球lièqiú- blastomere (裂liè- to part + 球qiú- ball);

3. adjective + noun:

小指xiǎozhǐ- little finger (小xiǎo- little + 指zhǐ - finger);

4. Numeral + noun:

三品sānpǐn- three levels of drugs (三sān- three + 品 pǐn- the products);

5. pronoun + noun [10].

For Chinese terminology, the first four have been productive. The fifth model was not marked.

However, A. L. Semenas identifies eight models of word formation, of which three models form a word according to the attributive type, three according to the copulative, one according to the verb-object and one according to the subjective predicative.

By attribute type:

1. noun + noun:

2. 水疮shuǐchuāng- chickenpox (水shuǐ- water + 疮chuāng- abscess, wound);

3. adjective + noun:

白喉bāihóu- diphtheria (白bāi- white + 喉hóu- larynx)

4. verb + noun:

5. 动脉dòngmài- vein (动dòng- move + 脉 mài- blood vessels)

By copulative type:

1. noun + noun:

2. 皮肤pífū- skin (皮pí- skin + 肤fū- surface);

眼睛yǎnjīng- eye (眼yǎn- eye + 睛jīng- eyeball)

3. adjective + adjective:

4. 宽窄kuānzhǎi- capacity, sizes 宽(kuān- wide + 窄zhǎi- narrow)

5. verb + verb:

输注shūzhù- infusion, linfusion (输shū- pour in, transport + 注zhù- pour)

By verb-object type:

2. verb + noun:

3. 皱纹zhòuwén- wrinkle (皱zhòu- wrinkle, crease + 纹wén- wrinkle)

By subjective-predictive type:

色散sèsàn- dispersion (色sè- цвет + 散sàn- dissipate);

头痛tóutòng- headache (头tóu- head + 痛tòng- get sick).

For Chinese medical terminology involving morpheme первый the most productive was the first type of noun + noun.

药材【yàocái】 medicinal raw materials.

药草【yàocǎo】 medicinal (medical) plants.

药厂【yàochǎng】 pharmaceutical factory.

药典【yàodiǎn】 pharmacopeia.

药店【yàodiàn】 pharmacy.

药方【yàofāng】 recipe.

药费【yàofèi】 medical expenses.

药粉【yàofěn】 (medical) powder.

药衡【yàohéng】 (medical) scales.

药酒【yàojiǔ】 infusion [11].

No less productive is the method of affix derivation of medical terms. The affixation method consists in joining affixes to significant morphemes. Affixes include prefixes, suffixes, and half suffixes. Prefixes are at the beginning of the Chinese word. Examples: 第[di] – ordinal prefix, 反[fan] anti, counter.

A pre-semipresent morpheme is usually called a semi-prefix. The lexical units resulting from joining a semi-prefix to the root morpheme are called semi-prefix words.

The lexical units formed by semi-memorable prefix morphemes are not numerous. They are much smaller than the words created by the post-root morphemes.

Below, using the actual language material, we consider sequentially semi-prefixal words formed by morphemes. A.L.Semenas in his work “Vocabulary of the Chinese language” notes the most frequently used prefixes such as: 超[chao], 泛[fan], 微[wei], 亚[ya], 反[fan].

When writing this article, it was difficult for us to find examples related to medical terminology involving morphemes 药 using the above prefixes.

But we came across many examples that begin with a morpheme 抗 [kàng].

The morpheme 抗 [kàng] means: “to rebuff”; “resist”; “to fight with someone or anything”; “to resist”. In medical word formation, its meaning is transmitted using the prefix: “anti-“ or “against-“. Based on our research, we would like to refer the following medical terms to the words that arose as a result of joining the semi-prefix root morpheme 抗.

For instance:

抗菌药物 [kàngjūn yàowù] antibacterial drug; antimicrobial remedy (but not “antibacterial medicine”);

抗癫痫药 [kàng diānxián yào] antiepileptic remedy;

抗糖尿病药 [kàng tángniàobìng yào] antidiabetic remedy;

抗喘药 [kàng chuǎn yào] antiasmatic remedy;

抗高血压药 [kàng gāoxuèyā yào] antihypertensive remedy;

抗心绞痛药 [kàng xīnjiǎotòng yào] antianginal remedy;

抗惊厥药 [kàng jīngjué yào] anticonvulsant remedy, anticonvulsant remedy;

抗结核药 [kàng jiéhé yào] anti-TB drug;

抗疟药 [kàng nüè yào] antimalarial remedy [12].

Suffixes are at the end of the Chinese word, they are productive elements of the Chinese word formation. Most common suffixes: 头, 子, 儿, 者, 的, 手, 家。

In the formation of medical terms involving morpheme 药, we looked at examples with the suffix 家. The suffix 家 forms the name of various persons by profession, specialty. With the development of chemistry and physics, drug science has been divided into a number of independent disciplines. Thus, new areas of pharmaceuticals arose.

For instance:

生药学 【shēngyàoxué】 pharmacognosy,

生药学家 【shēngyàoxuéjiā】 pharmacognosologist,

药理学 【yàolixué】 pharmacology,

药理学家 【yàolixuéjiā】 pharmacologist,

毒理学【dú lixué】 toxicology,

毒理学家【dú lixuéjiā】 toxicologist

One of the general laws of development of any language is contraction. A similar process takes place in Chinese. Compound words are an abbreviated form of full names. They arise on the basis of a word, phrase or more complex language unit due to the loss of some of its elements.

With the development of accurate instruments of the 21st century, capable of measuring the concentration of any substance in blood plasma, new scientific concepts were born. Such as 药物效应动力学【yàowù xiàoyìng dònglìxué】 “pharmacodynamics” and 药物代谢动力学【yàowù dàixiè dònglìxué】 “pharmacokinetics”. Pharmacodynamics studies the processes that occur when the molecule of the active substance 药物【yàowù】 joins the receptor, causing the desired therapeutic effect 效应【xiàoyìng】. We want to draw your attention to how the word 动力学【dònglìxué】 can mean “kinetics” or “dynamics” depending on the context. In short, pharmacodynamics is written as 药效学【yàoxiàoxué】.

Pharmacokinetics 药物代谢动力学 studies the route of administration of drugs, their distribution in the body and the route of excretion. Pharmacokinetics is the metabolism of 代谢【dàixiè】 of any drug substance in the human body. This in turn depends on the route of administration of the drug substance (oral, parenteral), distribution in the body (penetrates or not through the placental barrier or into the Central Nervous System) and excretion of the substance from organism (through the kidneys or through the liver). In short, pharmacokinetics is written as 药代学【yàodàixué】 [13].

III. CONCLUSION

From the foregoing, it follows that in modern Chinese, medical terms with the participation of the morpheme 药, can be formed:

- The method of compounding, the most productive type is considered noun + noun. 药店- pharmacy (药- medicine, 店- shop);
- Affix formation. Modern Chinese has everything that could be categorized as semi-prefixes. Half-prefixing takes a very modest place in the word-formation system of medical terminology with the participation of the morpheme 药. The most productive can be emphasized semi-prefix 抗。 抗菌药物 [kàngjūn yàowù] antibacterial drug; antimicrobial agent (but not “antibacterial medicine”).
- Reductions. The abbreviation in Chinese is widespread, many of the abbreviations are used even more often than their original forms. 药物效应动力学【yàowù xiàoyìng dònglìxué】 pharmacodynamics reduced by 药代学【yàodàixué】 [14].

The development of medical terminology is determined by the contribution made by such sciences as chemistry, physics, anatomy, biology, mathematics, etc.

Medical terms are formed in accordance with the general word-formation rules of the language. In our article, we examined only a few of them using the example of the morpheme药.. These are methods of compounding, affix derivation, contraction came to the conclusion that the method of compounding is the predominant way in the formation of medical terms.

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