

SURVEY ON CANCERS' RESEARCHES RELATED TO CHINESE HERBAL MEDICINE AND FREE RADICALS

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Background

In recent years, increased researches on Chinese herbal medicine and cancers have been done. An overview of the status of these researches is needed.

Objective

This study aimed at reviewing Chinese herbal medicine researches on cancers which involve mechanism related to free radicals.

Method

Key database, Pub Med has been searched up till Sept 2014. Keywords such as free radicals, reactive oxygen species, antioxidants and Chinese herbs were used. The search was restricted to recent 5 years and cancer related with filters. A total of 386 entries were found. Further screening was done to eliminate studies with entries clearly not relevant based on abstract and/or title and with herbs not stated in Chinese Pharmacopoeia Commission 2000. At last, 47 articles were included and analyzed in Research types, Organ systems studied, Herbal categories and Free radical related mechanisms involved.

Pub Med search
(n=386)

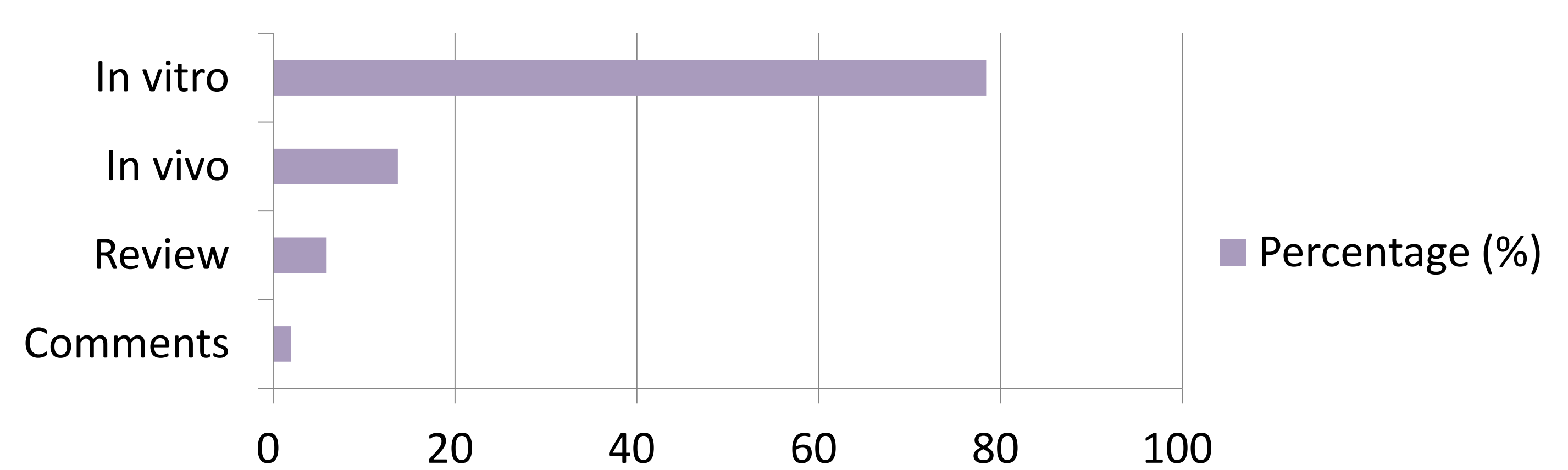
Screening with entries clearly not relevant
and
with reference to Chinese Pharmacopoeia
Commission 2000
(n=47)

Analyzed in terms of:
1. Research types
2. Organ systems studied
3. Free radical related mechanisms involved
4. Herbal categories

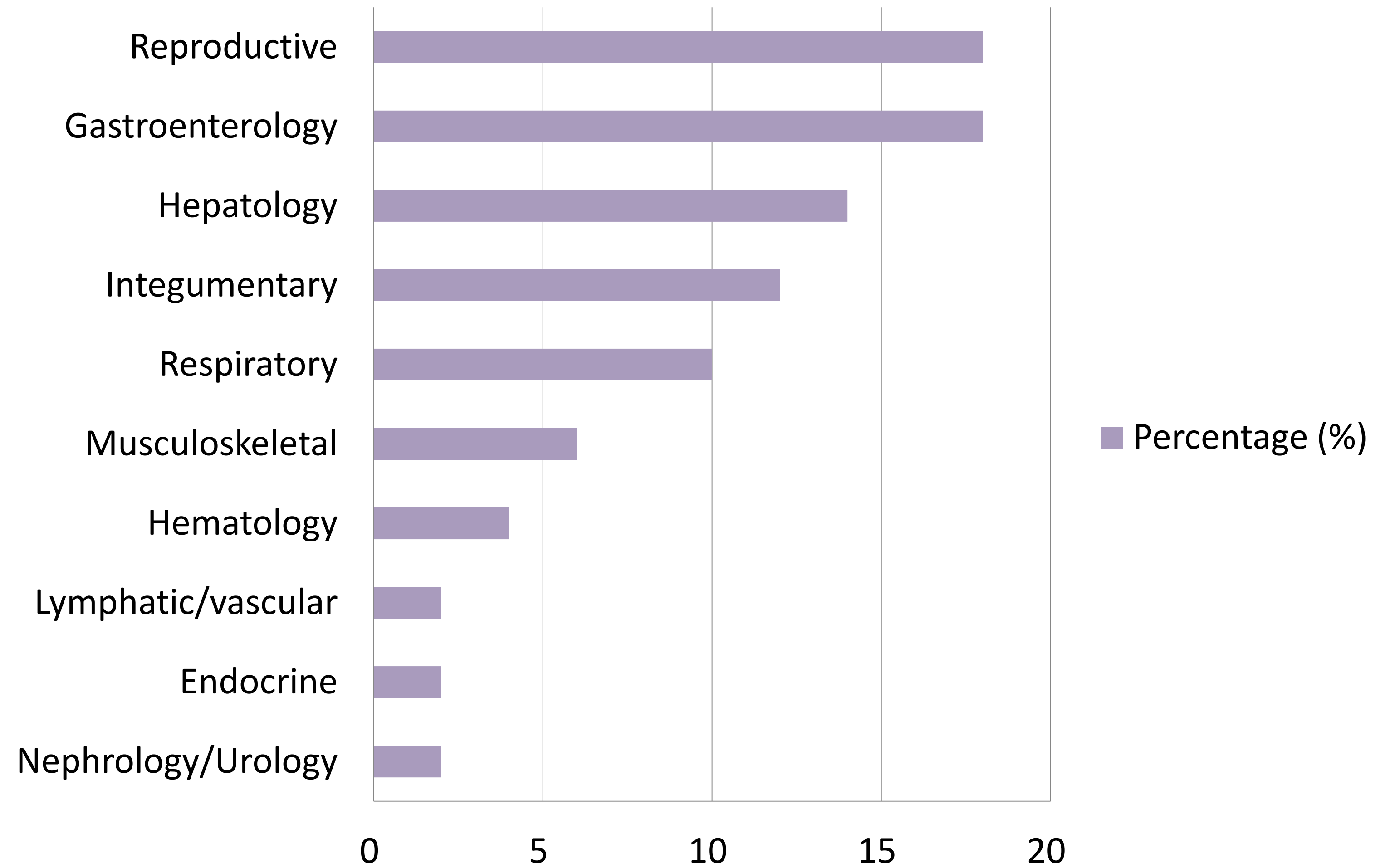
Results

Among the 47 identified articles, 78% were *in vitro* studies and 14% were *in vivo*. Cancers in reproductive system and gastroenterology were most popular with 18% each. More anti-tumor herbs were found to act by causing the production of reactive oxygen species (ROS)(60%) than acting as antioxidants (about 40%). Among the articles, 90% studied on individual compounds extracted from herbs. Among the herbs studied, 42% fall into traditional Chinese herbal category of "clear heat" and "relieve toxin".

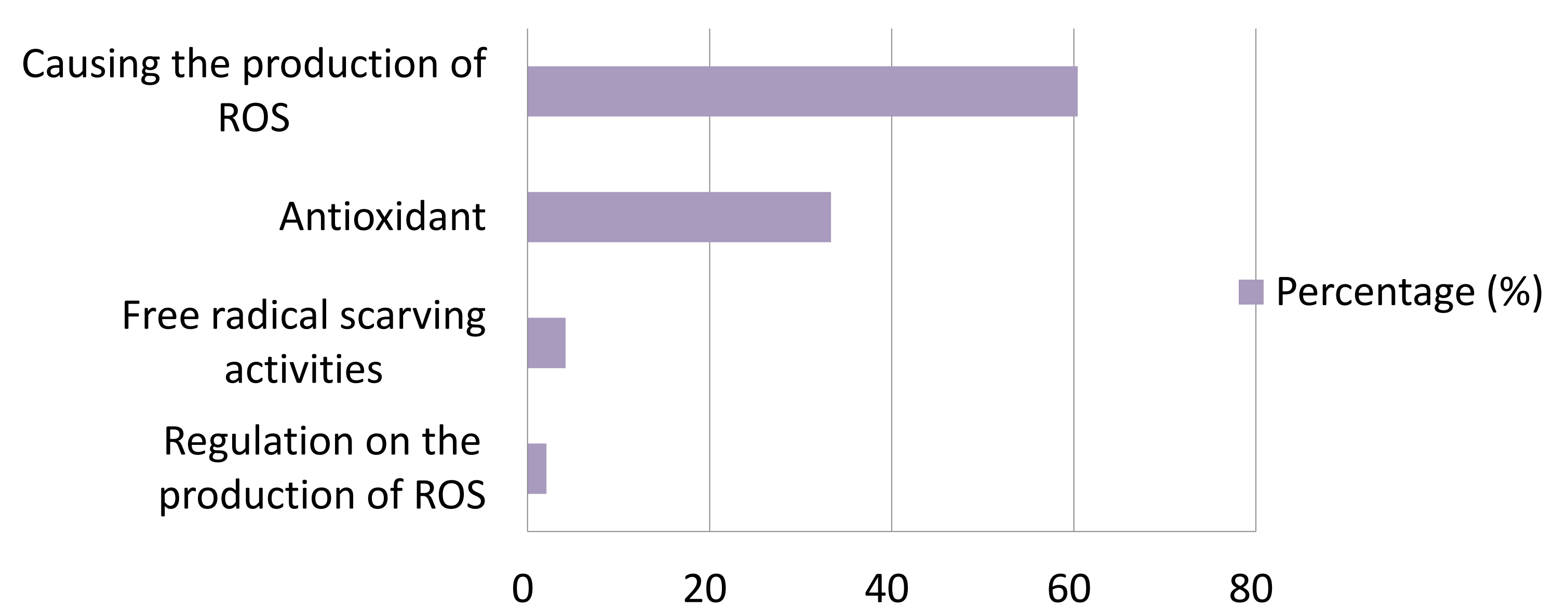
Percentage of Types of research in articles found (%)



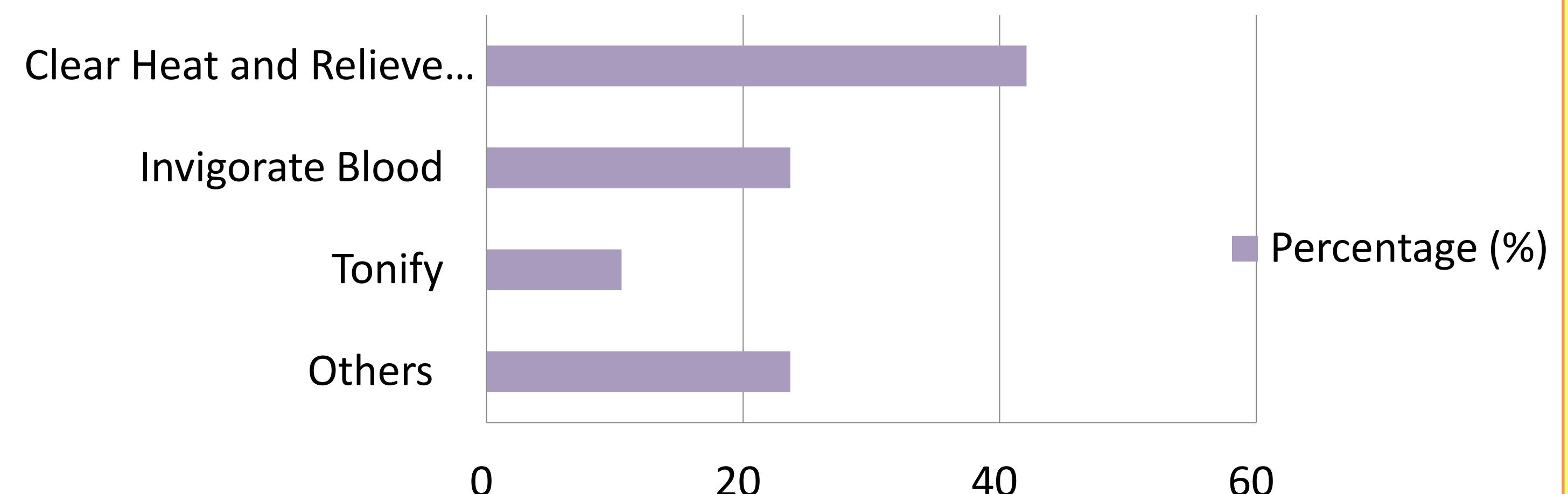
Percentage of Organ Systems in articles found (%)



Percentage of Free radical related Mechanisms involved in articles found (%)



Percentage of Herbal categories of herbs studied in articles found (%)



Conclusion

Most Chinese herbal researches on cancer were done *in vitro* and most herbs were under "clear heat" and "relieve toxin" Chinese medicine category.