

CODEN:ZBSZEB 2006, 22(13) 1-544  
中国自然科学核心期刊

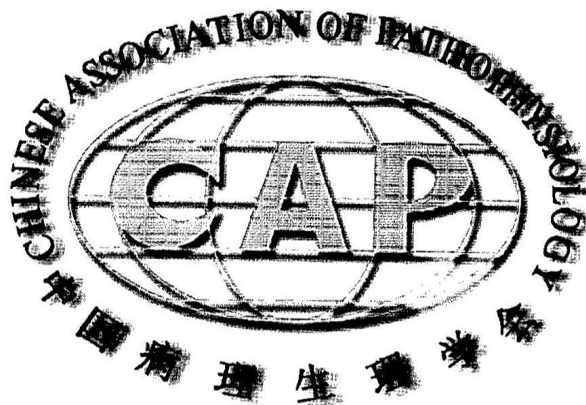
ISSN 1000-4718  
CN 44-1187/R

# 中国病理生理杂志

ZHONGGUO BINGLI SHENGLI ZAZHI

**CHINESE JOURNAL OF PATHOPHYSIOLOGY**

2006年6月 第22卷 第13期 (增刊) June 2006 Volume 22 No.13 (Supplement)



中国病理生理学会主办

ISSN 1000-4718

SPONSORED BY THE CHINESE ASSOCIATION OF PATHOPHYSIOLOGY

暨南大学出版社

PUBLISHED BY JINAN UNIVERSITY



- Peng Wei 481  
 Peng Yu 135,439  
 Peter Ferdinandy 113  
 Peter Hamar 162  
 Peter Illes 171  
 Peter Norsk 172  
 Ping Feng 452  
 Ping GAN 483  
 Ping Huang 21  
 Ping Li 117  
 Ping Wu 341  
 Ping Zou 506  
 Pollyana B 126  
 Professor Anatoliy I. Gozhenko 158  
 Qi Chen 15  
 Qide Han 2  
 Qi Xu 13,266  
 Qi Zhao 25  
 Qian Wang 122  
 Qian Zhao 398  
 Qiang Li 209  
 Qiang Wu 261  
 Qiao Wu 102  
 Qin Han 302  
 Qin Hu 26,221,349,509  
 Qiong Zhou 523  
 Qing Gao 235  
 Qing Tian 447  
 Qi - quan Zhou 143,430,469,485,537  
 Qin - guo Ren 445  
 Qing - guo Ren 445  
 Qing - hua Hu 90  
 Qing - jiang Zeng 249  
 Qiu - hua Wang 420  
 Qiu - lin Wang 251  
 Quan - jiang Zhang 196  
 Qun Wang 488  
 R. Superko 8  
 R. Uyar 440  
 Rakhimdjan K. Azimov 188  
 Raluca Haliga 285  
 Rasulova V. B. 124  
 Reinhard Bauer 139  
 Rezan Hatungil 248  
 Ricardo R. Rodríguez 201,280  
 Richard Kvetnansky 40  
 Robert Chunhua Zhao 5  
 Rodrigo A. Cunha 172  
 Rohovyy Y uriy Yevgenovich 156  
 Rong Xing 424  
 Rong - hong Hua 402  
 Rouben A. Hovhannisyan 349  
 Roxana Irina S. Iancu 493  
 Rui - feng Li 352  
 Rui - hua Chen 325  
 Rui - li Jin 452  
 Rui - li Zhang 518  
 Rui - ping Xiao 28  
 Rui - zhen Chen 346  
 Run - liang Gan 370  
 Ryoichi Nagatomi 111  
 S. I Pavlovich A. A. Bogomoletz 496  
 Sa shi 309  
 Sabirova R. A. 307  
 Sadrettin PEN ÇE 427  
 Sang - gun Roh 70  
 Saowanee Luangaram 407  
 Saribal D 299  
 Sazontova T. G. 114,148,399  
 SDr. Samvel A. Avetisyan 350  
 Sebnem Tuna 528  
 Semir Ozdemir 279  
 Serap Erdem - Kuruca 390  
 Seref Erdogan 310  
 Sergei N. Orlov 179  
 Sevil PEHLiVAN Güven URAZ Benay ÇAM 533  
 Seyd Hassan Hejazian 428  
 Shan Meng 533  
 Shang - bin Yu 295  
 Shang - ling Pan 176  
 Shan - shuang Li 260  
 Shao - hui Wang 438  
 Shao - yong Su 278  
 Sharova E. V. 425  
 Shen Yue 442  
 Shen - hua Xu 384  
 Shen - yuan Yuan 293  
 Shi - gong Zhu 138  
 Shi - jun Wang 109,190  
 Shilog Lin 490  
 Shi - min Zheng 517  
 Shi - ming Chen 521  
 Shi - rong Zheng 157  
 Shi - shan Dong 236,261  
 Shou - ling Mi 177  
 Shu Chien 3  
 Shuang Liu 190  
 Shuang Wang 226  
 Shuang Zhao 424,433  
 Shu - feng Chen 69  
 Shu - jin Li 345  
 Shu - ling Yue 435  
 Shumin Xu 470  
 Shu - qin Li 98  
 Shu - qing Li 455,456  
 Shu - qiu Wang 285  
 Shu - xia Zhang 323  
 Si Jin 359  
 Sibel Dincer 410  
 Si - feng Chen 166,366,398,519  
 Si - ying Wang 320  
 Snezana T Zivancevic - Simonovic 338  
 Snezana Zunic - Bozinovski 147  
 Sofia V Pereira 391  
 Song - hai Chen 81  
 Steve Tung 180  
 Suhayla Mukaddam - Daher 41  
 Sule Tamer 352,494  
 Supaporn Muchimapura 65  
 Su - ping Fang 423  
 Sushil K. Jain 52  
 Svetlana Yu. Tchoubrieva 300  
 T Lueti é 335  
 T. Djarova 526  
 T. Mobasheri 524  
 T. P. Bardimova 409  
 Tadaaki Mano 174  
 Takeo Matsumoto 62  
 Tamara Mirzapoiazova 96  
 Tao Shen 191  
 Tatjana Padosavljevic 496  
 Tatyana V. Zvyagintseva 343  
 Terttu Vilpponen. Salmela 118  
 Theo J. C. van Berkel 8  
 Thomas D. Kampp 54

-8 in part, induced by  $H_2S$  ( $P < 0.01$ ). Western blot results showed that  $H_2S$  inhibited P38 phosphorylation induced by LPS. NF- $\kappa$ B translocation and activation is important pathway of proinflammatory cytokins secretion. After 15 min treatment with LPS, NF- $\kappa$ B p65 translocation from cytoplasm to nuclear was found, and 60 min, the maximum translocation (100% cells) was observed according the immunofluorescence and western blot. Administrated with  $H_2S$ , obviously inhibited the NF- $\kappa$ B p65 translocation induced by LPS, even after 120 min, the numbers of translocation cells was not so many as 50%. **CONCLUSION:**  $H_2S$  inhibited pro-inflammatory cytokines (MCP-1 and IL-8) release by P38 MARK and NF- $\kappa$ B pathway.

P-II-29@ISP-13-0847-060217

## Hematologic mechanisms of inflammation chronization

Klimenko N. A., Lipshits R. U., Shevchenko A. N., Tatarko S. V

(*Kharkov State Medical University, 4, Lenin Ave, Kharkov 61022, Ukraine. pathophys@khdmu.bestnet.kharkov.ua*)

The cellular and humoral hematologic mechanisms of inflammation chronization, the basis of use of hemomodulators for prevention and treatment of chronic inflammation are studied. On the model of acute infectious inflammation and various models of chronic inflammation (carrageenan-, sephadex- or adjuvant-induced) in rats it is established that chronic inflammation is characterized by insufficiency of cellular reactions, starting with neutrophil reaction in comparison with an acute one. At persistence of phlogogen and transformation of acute inflammation to chronic one, neutrophil reaction is compensatory increased, macrophage and fibroblast reactions are delayed, T-cell reaction is increased. As chronization of inflammation persists and phlogogen can not be eliminated, macrophage reaction is increased, neutrophil reaction weakens. Neutrophil infiltration is decreased up to its absence in adjuvant arthritis, neutropoiesis is decreased. Functional insufficiency of cells is observed, according to decrease of adhesiveness of leukocytes (CD54), neutrophils (CD44) in the focus, decrease of leukocyte activity in the peripheral blood by marker enzymes. Other cell reactions are violated. In the course of chronic inflammation because of impossibility of phlogogen elimination, the insufficiency of cell reactions of blood system is increased, monocyte-macrophage activity is decreased. On the other hand, the necessity in CSFs is increased for support of cell reactions, and in due course, as a result of their decreased production, their shortage occurs. The use of recombinant human G-CSF, neupogene, following the to basis therapy at exacerbation of chronic secondary recurrent pyelonephritis in children with refractoriness to therapy, which was used previously, allowed to achieve rapid and prolonged clinical and laboratory remission of the disease. The mechanisms of anti-inflammatory effect of neupogene include increase of active neutrophils in the blood, strengthening of oxygen-dependent and oxygen-independent mechanisms of their microbicidal activity

P-II-30@ISP-13-0511-060215

## Pathogenetic substantiation of long healing wounds pharmacology correction

Tatyana V. Zvyagintseva, Igor V. Khalin, Yegor V. Zhelnin

(*Pharmacology Department, Kharkov State Medical University, Lenin av. 4, Kharkov 61022, Ukraine. tana@khdmu.bestnet.kharkov.ua; khalin@list.ru*)

Oxidation-antioxidation and immune homeostasis, which have the influence on reparation, were studied in the skin, in tunica mucosa of mouth (TMM), in blood, and in saliva on the next models: skin local irradiation by various doses of ionizing radiation (IR) (30-40 grays), general single irradiation by dose of 6 grays, general fractional irradiation (total dose 1 gray) and on the Chernobyl contingent in long-term date after irradiation. Increasing of content of not only primary lipid peroxidation products (LP), but second products too was established, that is evidence of the process became irreversible. In the same time, antioxidant enzymes activity in the skin, in TMM, in blood, and in saliva was greatly reduced under all type of irradiation. Immune reactions were characterized by disturbances of T-system and antigen making function, autoimmune process development. In all cases, morphological changes included development of moderately expressed dystrophical, immunopathological, dyscirculator, rheological changes and metabolic-synthetic processes. Taken data allow considering the skin and tunica mucosa irradiation injuries, which have arisen under various doses and

conditions of IR, as unity of breaking and protection in inflammation, that lies in the basis of process chronization and healing failure. Multifactor reparation abnormalities are the pathogenetic substantiation of working up new ways to conservative therapy of long healing wounds. These ways include local medical measures, which allow making high concentration of energetic and plastic substrate, medicines, which improve microcirculation, in the focus; using of polytropic action medicines, which have such features as antioxidant, stabilization of cell membrane, immune modulation, blocking LP processes. Their local effect goes with positive influence on general organism reactivity. New elaborations make the plans for perfection further methods of new medicines for the treatment of skin irradiation injuries, trophic ulcers and long healing wounds.

P - II - 31@ ISP - 13 - 0049 - 051207

## Effects of shenmai injection on immune function and survival times of hemorrhagic shock reperfusion rabbits

Li - sha Han<sup>1</sup>, Zhe Han<sup>2</sup>, Yuan Zhang<sup>1</sup>

(<sup>1</sup> Baotou Medical College, <sup>2</sup> The Fourth Municipal Hospital, Baotou 014010, China. lishahan@sina.com)

**AIM:** Postischemia reperfusion not only cannot make functional recovery of tissues and organs, but also aggravate lesion of function and structure. At present, studies consider that its generation is associated with free radical and calcium ion overloading. Influence of stress reaction resulting from postischemia reperfusion on organism immune function also participated its generation and development. Scholars pay close attention to searching anti - Ginjuring medicine. This article researched effects of Shenmai injection on immune function and survival times of hemorrhagic shock reperfusion rabbits. **METHODS:** 16 healthy rabbits were divided into two groups: experimental group, control group. 3% pentobarbital sodium (30mg/kg) was used to anesthetize via ear - lip intravenous injection, arteria carotis communis cannula was used to measure blood pressure after heparinization (The second Military Medical University, MPV - IV type multichannel biologic signal analytical system), and two - sides intra - ureteral cannula was used to record urinary volume. To drop blood pressure from normal 120 mmHg to 40 mmHg within 10 minutes, and maintain 30 minutes. When rabbits appeared oliguria, speeding up of heart rate, obviously decreasing of mesentery microcirculation perfusion, to input quickly self blood and 120 ml NS through external jugular vein in control group. As for experimental group, adding Shenmai injection 1.5 ml/kg to NS during transfusion. After input, that is reperfusion, of 30 minutes, 1 hour, 2 hours, to take blood from external jugular vein respectively, to record ratio variation (%) of T - lymphocyte, B - lymphocyte, and to determine content changes of IgG, Ig A, Ig M, together with observing and recording mean survival times. **RESULTS:** IgG gently decreased in 30 minutes after hemorrhagic shock, content of IgG, Ig A, Ig M all dropped in 2 hours after hemorrhagic shock. While in each time section after using Shenmai injection, content of IgG, Ig A, Ig M all increased at different levels, 2 hours' content of IgG especially heighten more obviously ( $P < 0.01$ ). As to the ratio of T, B - lymphocyte, in one hour after reperfusion, Shenmai injection's lymphocyte population increased, levels of IgG, Ig A, Ig M also added following times extension. Mean survival time of control group was  $162.13 \pm 65.45$  min, that of Shenmai injection group was extended to  $298.68 \pm 106.66$  min ( $P < 0.05$ ). **CONCLUSION:** Shenmai injection can improve immune function of hemorrhagic shock rabbits and prolong rabbits survival times, which was associated with effective components in ginseng, ophiopogonis tuber of Shenmai injection. these components can protect vascular endothelial cell, dilate blood vessel, improve blood supply of tissues, lessen biomembrane injury owing to ischemic reperfusion through developing antioxidation, and safeguard cellular function.

P - II - 32@ ISP - 31 - 1031 - 060302

## Antimicrobial activity of some heterarylazindole dyes

Nermin Ertan<sup>1</sup>, Zeynel Sefero ğlu<sup>1</sup>, Ebru Yilmaz<sup>2</sup>, Güven Uraz<sup>2</sup>

(<sup>1</sup> Gazi university, Faculty of Art and Science, Department of Chemistry, 06500 Teknikokullar, Ankara - Türkiye; <sup>2</sup> Gazi university, Faculty of Art and Science, Department of Biology, 06500 Teknikokullar, Ankara, Türkiye)

Azo compound are very important in the fields of dyes, pigment and advanced materials. It has been known for many years that the azo compounds are the most widely used class of dyes due their versatile application in various fields such as the dyeing of textile fibre, the coloring of different materials, colored plastic and polymer, biological - medical studies and advanced applications in organic syn-