

PVRI China Report 2017

Chen Wang, Zhenguo Zhai, & Martin Wilkins



The Pulmonary Vascular Research Institute (PVRI) China Task Force has continued its active participation in organising national and international conferences and education courses of pulmonary vascular diseases (PVDs) in China, aiming to extend/update the understanding of pulmonary embolism and pulmonary hypertension among Chinese physicians, exchange clinical experiences and create future international collaboration opportunities.

The PVRI China Task Force has encouraged collaboration at international level. Joint research has brought in several international joint publications and promoted both clinical and translational science PVD research in China.

The 9th National Congress on Pulmonary Embolism and Pulmonary Vascular Diseases and the 7th International Conference of Pulmonary Circulation Disorders through collaboration between the PVRI and the Chinese Thoracic Society was held in Changsha, China, 14-16 April 2017.

The conference covered a broad range of topics based on the expertise of leaders in PVD. The topics covered the most updated guidelines of venous thromboembolism (VTE) and pulmonary hypertension, especially the updated antithrombotic and prevention of thrombosis guidelines and pulmonary hypertension guidelines, which provided the latest knowledge of diagnosis, treatment and prevention of pulmonary embolism and pulmonary hypertension. The PVRI also enhanced its educational programme during the meeting.

From 1-7 May (5 May 2017 - World Pulmonary Hypertension Day) Physicians from different cities organised meetings to raise awareness of pulmonary hypertension by staging various events on a national scale, involving both the scientific community and general public. A series of educational and social activities for pulmonary hypertension were held in Beijing, Guangzhou, Shanghai, Shandong, Tianjin, Shenyang. More than 100 multidisciplinary physicians and 200 patients and family members participated in the activities. The issues of health education, social support, medical insurance and standardised treatment for Chinese pulmonary hypertension patients were discussed.

August 2017 - China Heart Congress. The one and a half days pulmonary vascular disease session was attended mostly by cardiology physicians. Lectures by Xiansheng Chen, Lan Zhao, Jason Yuan covered topics in advances in PAH, as well as in congenital heart disease and medical and surgical treatment of chronic thromboembolic pulmonary hypertension.

22-25 September 2017 - The 17th National Conference of Chinese Thoracic Society was held in Xi'an, China. This meeting provided a communication stage that would ensure further progress in the diagnosis and treatment of pulmonary vascular disease, including pulmonary embolism and pulmonary hypertension for physicians, scientists and other health care providers in China.

May & July 2017 - Two education programmes on standardising the diagnosis and treatment of pulmonary vascular diseases were tabled in the Chinese Medical Journal. These courses provided updates on several important aspects, including diagnosis and treatment of pulmonary hypertension, diagnosis technology, and standard thrombolytic and anticoagulant therapy, and clarified a standardised operational procedure for imaging pulmonary hypertension. More than 10 multidisciplinary physicians jointly explored and distributed some special points on the clinical practice of evaluation and management of pulmonary embolism and pulmonary arterial hypertension.

A multidisciplinary consultation platform for diagnosis and management of pulmonary vascular diseases was set up in the China-Japan Friendship Hospital. At the end of October 2017, more than 400 complicated PVD patients had been discussed since its inception. This platform provided a good support for individualised diagnosis and treatment of pulmonary embolism and pulmonary hypertension. The platform also provided excellent learning and communication opportunities for physicians.

Pulmonary Hypertension Academy, a multicentre and multidisciplinary education platform for the diagnosis and management of pulmonary vascular diseases was set up in Beijing China, which includes: China-Japan Friendship Hospital, Peking Union Hospital, Fuwai Hospital, Anzhen Hospital, Chaoyang Hospital and Beijing Hospital. This academy provides excellent learning and communication opportunities for young physicians who have great interest in pulmonary hypertension.

10-15 October - to mark World Thrombosis Day on 13 October, activities were organised during the whole week, including education for patients and the public, MDT consultation for PE-DVT patients, social media activity to increase awareness of WTD, and a two-day education programme for physicians.

Major Publications

- Zhang YX, Li JF, Yang YH, Zhai ZG, Gu S, Liu Y, Miao R, Zhong PP, Wang Y, Huang XX, Wang C. Renin-angiotensin system regulates pulmonary arterial smooth muscle cell migration in chronic thromboembolic pulmonary hypertension. *Am J Physiol Lung Cell Mol Physiol*. 2017 Nov 9;ajplung.00515.2016. doi:10.1152/ajplung.00515.2016. [Epub ahead of print] PubMed PMID: 29122755.
- Zhai Z, Zhou X, Zhang S, Xie W, Wan J, Kuang T, Yang Y, Huang H, Wang C. The impact and financial burden of pulmonary arterial hypertension on patients and caregivers: results from a national survey. *Medicine (Baltimore)*. 2017 Sep;96(39):e6783. doi: 10.1097/MD.0000000000006783. PubMed PMID: 28953608; PubMed Central PMCID: PMC5626251.
- Yu Y, Zhai Z, Yang Y, Xie W, Wang C. Successful thrombolytic therapy of post-operative massive pulmonary embolism after ultralong cardiopulmonary resuscitation: a case report and review of literature. *Clin Respir J*. 2017 May;11(3):383-390. doi: 10.1111/crj.12332. Epub 2015 Jul 24. PubMed PMID: 26083151.
- Zhang Z, Zhai Z, Yang Y, Wan J, Xie W, Zhu J, Shen YH, Wang C. Diabetes mellitus is associated with increased bleeding in pulmonary embolism receiving conventional anticoagulant therapy: findings from a "real-world" study. *J Thromb Thrombolysis*. 2017 May;43(4):540-549. doi: 10.1007/s11239-017-1473-5. PubMed PMID: 28093650.
- Kim NH, D'Armini AM, Grimminger F, Grünig E, Hoeper MM, Jansa P, Mayer E, Neurohr C, Simonneau G, Torbicki A, Wang C, Fritsch A, Davie N, Ghofrani HA. Haemodynamic effects of riociguat in inoperable/recurrent chronic thromboembolic pulmonary hypertension. *Heart*. 2017 Apr;103(8):599-606. doi:10.1136/heartjnl-2016-309621. Epub 2016 Dec 23. PubMed PMID: 28011757; PubMed Central PMCID: PMC5529957.
- Zhang W, Wang W, Liu J, Li J, Wang J, Zhang Y, Zhang Z, Liu Y, Jin Y, Li J, Cao J, Wang C, Ning W, Wang J. Follistatin-like 1 protects against hypoxia-induced pulmonary hypertension in mice. *Sci Rep*. 2017 Mar 31;7:45820. doi: 10.1038/srep45820. PubMed PMID: 28361925; PubMed Central PMCID: PMC5374469.
- Xu QX, Yang YH, Geng J, Zhai ZG, Gong JN, Li JF, Tang X, Wang C. Clinical Study of Acute Vasoreactivity Testing in Patients with Chronic Thromboembolic Pulmonary Hypertension. *Chin Med J (Engl)*. 2017 Feb 20;130(4):382-391. doi: 10.4103/0366-6999.199829. PubMed PMID: 28218209; PubMed Central PMCID: PMC5324372.
- Qiu J, Xie W, Zhai Z, Wan J, Wang C. Metastatic synovial sarcoma of lung mimicking pulmonary embolism and deep venous thrombosis. *Thorax*. 2017 Feb;72(2):186-188. doi: 10.1136/thoraxjnl-2016-209029. Epub 2016 Nov 4. PubMed PMID: 27815520.
- Zhou X, Zhang Z, Zhai Z, Zhang Y, Miao R, Yang Y, Xie W, Wan J, Wang C. Pleural effusions as a predictive parameter for poor prognosis for patients with acute pulmonary thromboembolism. *J Thromb Thrombolysis*. 2016 Oct;42(3):432-40. doi: 10.1007/s11239-016-1371-2. PubMed PMID: 27165281.
- Xie WM, Zhai ZG, Wang LF, Wan J, Yang YH, Wang C. Endovascular Catheter-guided Forceps Biopsy for the Diagnosis of Suspected Pulmonary Artery Sarcoma: A Preliminary Study of Eight Cases. *Chin Med J (Engl)*. 2016 Sep 20;129(18):2246-9. doi: 10.4103/0366-6999.189910. PubMed PMID: 27625099; PubMed Central PMCID: PMC5022348.
- Wang C, Zhai Z, Yang Y, Cheng Z, Ying K, Liang L, Dai H, Huang K, Lu W, Zhang Z, Cheng X, Shen YH, Davidson BL; China National Venous Thromboembolism (VTE) Study Group. Inverse relationship of bleeding risk with clot burden during pulmonary embolism treatment with LMW heparin. *Clin Respir J*. 2016 Sep;10(5):596-605. doi: 10.1111/crj.12262. Epub 2015 Apr 8. PubMed PMID: 25619125.

