

PORCINE SPLEEN PEPTIDES HAVE BEEN TESTED AND USED EXTENSIVELY IN CHINA. BELOW ARE SUMMARIES OF TWENTY-EIGHT CLINICAL STUDIES

Study Title	Location	Number Of Subjects Polyerga/Without	Results	Conclusion
Effect of Pain Relief of Polyerga Patients with Advanced Lung Cancer	Anhui Provincial Lung Hospital, Hefei	32/0	The CR+PR+MR in patients with serious pain was 90.6%.	Polyerga can be routinely used for relieving serious pain suffered by advanced lung cancer patients.
Radiosensitizing Effect of Polyerga in Radiotherapy of Lung Cancer (Random)	First Hospital of Shijiazhaung, Hebei	15/16	The CR+PR was 80% and 43.75%, respectively, for the treatment vs. non-treatment group.	Polyerga shows high radiosensitizing effect on hypoxic Hela-S3 cells in vitro.
Clinical Study on Combined Treatment of Esophageal Carcinoma with Radiotherapy and Polyerga (Random)	Xuzhou Fourth People's Hospital, Jiangsu	24/30	The short term curative rates were 95.5% and 76.7%, respectively, for the treatment vs. non-treatment group. WBC count did not decrease in the treatment group, but did in the non-treatment group.	Polyerga can effectively increase the sensitivity of esophageal cancer to radiotherapy, the immunity of the body, improve the quality of life and reduce the side-effects of radiotherapy.

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Radiation Combined with Polerga in Treatment of Esophageal Carcinoma (Random)	Shangqui District Hospital, Hebei	30/30	The one/two year survival rates were 76.7%/46.7% and 46.7%/20%, respectively, for the treatment/non-treatment groups. The changes in appetite, body weight and blood picture before and after the treatment were superior for the Polyerga group.	Radiation combined with Polyerga may improve the quality of life of esophageal cancer patients and elevates survival rates. Polyerga is a good adjuvant of radiation therapy in the treatment of advanced esophageal cancer.
Polyerga Treatment in Advanced Breast Cancer (Random)	Tianjin Cancer Hospital, Tianjin	18/20	The CR+PR rates were 50%/28.6% and the two-year survival rates were 94.4%/40%, respectively for the treatment vs. non-treatment groups. The survival quality of the treatment group was significantly better.	Polyerga combined with chemotherapy can improve the prognosis and quality of life of advanced breast cancer patients and is worth recommending use.
Clinical Observations on Combined Therapy of Polyerga and Cisplatin for Malignant Pleural Effusion and Ascites (Random)	Xiangtan First People's Hospital, Hunan	27/27	The toxic side-effects in the treatment group were much lower.	Polyerga has a synergistic effect to Cisplatin. These two in combination are more effective and less toxic in the treatment of malignant pleural effusion and acites.

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Clinical Observation of Polyerga in Treatment of Advanced Malignant Pleural Effusion (Random)	Qingdao Cancer Hospital, Qingdao	32/32	The CR+PR was 30%/56.7% and 15.6% and 18.8%, respectively, in the treatment group vs. the non-treatment group.	The mean survival time and the effusion control rate of the Polyerga group were significantly better than the 5-FU-only group.
Intrathoracic Injection of Polyerga Treatment of Refractory Malignant Pleural Effusion	Jinzhou Railway Hospital, Jinzhou	20/0	Effective rate of 65% and no toxic side effects. No reduction in WBC and lymphocytes increased.	Polyerga has a marked analgesic action and is effective in the treatment of refractory malignant pleural effusion.
Clinical Observation on Treatment of Malignant Thoracic Effusion by Using Accessory Polyerga with Cisplatin Therapy (Random)		28/30	Amelioration of symptoms, pain relief, antiemetic effect, and survival quality and time were far superior in the Polyerga group.	Polyerga possesses anticancerous action without toxicity and enhances the organic immunity.
Clinical Trial of Polyerga Infusion via Both Hepatic Artery and Portal Vein for Liver Cancer (Random)	First Affiliated Hospital of Hengyeng Medical College, Hunan	10/10	No toxic side effects were noted. The WHO therapeutic effect criterion CR,PR,MR,SD,PD were 1,5,2,2,0 and 0,3,4.2.1 in the Polyerga and control groups, respectively.	Intravascular infusion of Polyerga is safe and effective.

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The Influence of Polyerga on IL-6, SIL-2R, TNF and Its Enhancing Apoptosis Effect to Hepatic Cancer Cells in Patients with Primary Hepatocellular Carcinoma (Random)	Department of General Surgery, Tongji Hospital, Tongji Medical University	10/10	SIL-2R level decreased significantly, IL-6 level increased prominently, and TNF level decreased. Polyerga had no adverse affect on blood routine and liver function.	Polyerga is a new anticancereous drug that can enhance the body immunity and accelerate apoptosis of cancer cells.
Polyerga in Treatment of Late Stage Digestive Tract Malignant Tumors – A Clinical Observation of 25 Cases (Various Cancers) (Random)	Railway General Hospital, Shengyang	12/13 Polyerga (P) vs. Polyerga and Chemo (PC)	Improved appetite, ability, weight gain and pain relief were demonstrated by the PC group over the P group, and the P group attributes were significantly improved compared to traditional chemotherapy only results. Significant changes in tumor size and WBC were also best in the PC group.	Polyerga is a new anticancerous agent which can be used with operation, chemotherapy or radiotherapy in the treatment of late stage cancer patients.
The Effect of Hepatic Artery Perfusion of Polyerga on Immune Function and Survival Time of Patients with Mediate or Late Stage Liver Cancer (Random)	General Hospital of Shengyang Military Command of PLA, Shengyang	18/18 Chemo (C) vs. Polyerga and Chemo (PC)	The lymphocyte blastgenis rate, T Lymphocyte rosette forming rate and NK cell killing rate were significantly higher in the PC group. The survival time of the PC and C groups were 326 and 266, respectively.	Polyerga can prolong the survival time of mediate and late stage liver cancer patients.

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The Amelioration Effect of Polyerga on NK Cell Activity in Advanced Colorectal Cancer	Zhejiang Cancer Hospital, Haugzhou		The NK cell activity in postoperative Polyerga patients increased markedly, while the control group was unchanged.	Polyerga is a safe and effective anticancer drug which can increase the NK cell activity of advanced colorectal cancer patients.
The Effect of Polyerga in Re-chemotherapy of Recurrent Non-Hodgkin's Lymphoma (Random)	Department of Oncology, Yichang Central Hospital, Yichang	24/24 Chemo (C) vs. Polyerga and Chemo (PC)	The CR was 37.5% and 50% for the PC and C groups, respectively. Toxic side effects were similar in both groups, but the III grade GI reaction was lower in the PC group. The CD3 and CD4 T-Cell subgroups were obviously higher in the PC group.	Polyerga can noticeably increase the sensitivity of the patient to re-chemotherapy of recurrent NHL and it can enhance the cell immune function.
Adjuvant Effect of Polyerga in Radiation Therapy of Cancer (Various Cancers) (Random)	Shanghai Ninth People's Hospital, Shanghai Second Medical University, Shanghai	30/30	The general condition and clinical manifestation of the treated group showed much better. WBC, lymphocyte, IL-2R and NK killer cells decreased significantly in the control group. The regression rate was 100% in the Polyerga group and 83% in the control group.	Polyerga has anticancerous action demonstrated by amelioration of symptoms and reduced side-effects of radiation. It is an ideal new adjuvant drug in combination therapy for malignant tumors.

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Effect of Polyerga in Treatment of Malignant Tumors (Various Cancers) (Random)	Guangdong Provincial Agricultural Reclamation Central Hospital, Zhanjiang	68/67	Life quality measured by body weight, Karnofsky's evaluation, appetite, etc. of the Polyerga group was superior to those in the control group not taking Polyerga.	Polyerga can elevate the life quality, relieve pain and has no toxic side effects.
Clinical Observation of Combined Treatment of Polerga and Chemotherapy (Various tumors)	Pu'ai Hospital of Tongji Medical University, Wuhan	16/0	All patients had improved appetite, weight gain, pain relief, with WBC within normal limits and good tolerance of chemotherapy.	
Curative Effect of Polyerga Treatment of Advanced Tumor (Various Advanced Tumors)	Oncology Department, 163 Hospital of PLA, Changsha	94/0	81 patients gained weight, WBC count within normal limits, fewer radiotherapy and chemotherapy side effects, and improved appetite in 34 cases.	
The Combination of Radiation and Polyerga for Treatment of 37 Cases of Advanced Cancer	Department of Radiotherapy, Changzhou Municipal Tumor Hospital, Changzhou	37/0	Fewer side effects to radiation treatments.	

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Therapeutic Effect of Polyerga in Advanced Malignant Tumor (Random)	Department of Oncology, Yantai Yuhuangding Hospital, Shandong	85/51 Chemo (C) vs. Polyerga and Chemo (PC)	The CR+PR and MR were 18.8%/16.5% and 3.9%/11.8% for the PC and C groups, respectively.	Polyerga has anticancerous action and inhibits the progress of cancer, and it may enhance the immunity of the patients.
Short-term Effect of Polyerga in Treatment of Malignant Tumors – A Report of 36 Cases. (Various Advanced Tumors)	Department of Oncology, Chaoyang Central Hospital, Liaoning	36/40	Those taking Polyerga show a significant improvement in appetite and weight gain after two weeks. No complications or side effects were noted.	Polyerga improved the patient's quality of life remarkably, and is effective in treatment of malignant tumors.
The Effect of Polyerga in Chemotherapy of Advanced Malignant Tumors (Various tumors)	Oncology Department, Jinzhou Railway Central Hospital, Jinzhou	40/40 Chemo (C) vs. Polyerga and Chemo (PC)	Anorexia, nausea and vomiting and other digestive tract reactions were 40% in the PC group and 90% in the C group. Weight gain was 20% in the PC group and 0% in the C group.	Polyerga is effective in improving general conditions and especially the digestive symptoms of chemotherapy patients.

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Radiation Combined with Polyerga in Treatment of Metastatic Bone Cancer (Lung, Breast, Prostate and Nasopharyngeal) (Evenly Divided by Type)	Jinzhou Railway Central Hospital, Jinzhou	20/20		No leucopenia was observed in the Polyerga group.
A Study on Response of Polyerga in Relieving Side Effects of Cancer Chemotherapy (Random)	Department of General Surgery, The Third Affiliated Hospital, Sun Yat – Sen University of medical Science, Guangzhou	28/27 Chemo (C) vs. Polyerga and Chemo (PC)	Nausea and vomiting were significantly reduced in the PC group. In addition, the patients appetite, anemia and body weight were also improved.	Polyerga can improve the quality of life of patients with gastrointestinal cancer during chemotherapy.
The Effect of Polyerga on Cellular Metastatic Potential and Related Cellular Behavior of Malignant Melanoma	Department of Respiration, Dapin Hospital, Third Military Medical University, Chongqing	Melanoma cells B16 treated with Polyerga	Polyerga significantly decreased the adhesiveness of tumor cells to the pulmonary endothelial cells and inhibited the invasiveness of the tumor cells. The number of metastatic nodules in the pulmonary tissue decreased remarkably.	The action of suppressing tumor metastasis of Polyerga is accomplished through inhibiting the metastasis-related cellular behavior, cell adhesion and invasion.

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Inhibitory Effects of Polyerga on Human Choriocarcinoma JAR Cell Line	Women's Hospital, Zhejiang Medical University, Hangzhou		Incubated tumor cells were decreased in number and became atrophic when treated with Polyerga. The cytoplasmic granules of LDH were decreased or completely disappeared and JAR tumor cell secretions were decreased.	Polyerga may play a part in suppressing the activity of LDH and growth of the human choriocarcinoma JAR cell line. It may be useful as an auxiliary drug in the treatment of choriocarcinoma.
The Effect of Combined Use of Polyerga and Cinobtfocini on Levels of CEA, B2-MG, SF, CT (Random)	Qiqihar First Hospital, Qiqihar	21/21	All four markers tested decreased significantly in the Polyerga group.	Polyerga used in combination with Cinobtfocini can effectively inhibit the process of carcinogenesis and enhance the body immunity.