

Effective treatment by using herbal extractive medicine to helpless liver cancer, ovarian cancer and mucinous breast carcinoma as III/IV line treatment

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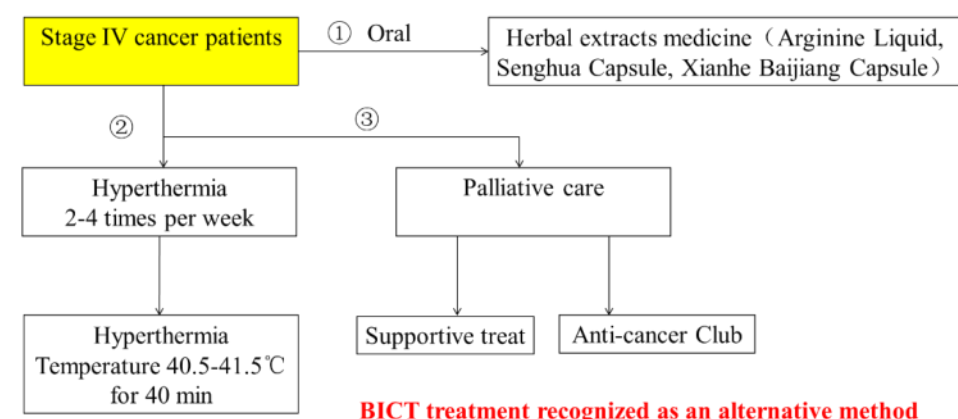
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Background

No standard guideline for III/IV line treatments were determined, so we pay much attention on the such patients who need salvage treatments after I/II line treatment failure. Here, we reported terminal-stage giant hepatocellular cancer(HCC), ovarian cancer(OC) and mucinous breast carcinoma(MBC) cases who used herbal extractive preparations as palliative treatment that contain ginseng, Herba Agrimonia, White Flower Patrinia Herb etc.

Method

- Giant HCC (D=12cm) patient with intrahepatic metastasis, OC patient with multi-lung metastasis, and bilateral pure BMC patient with metastasis on bilateral lung, chest wall were enrolled.
- QOL, ECOG, NRS pain score and survival time were evaluated.
- Herbal extract preparations and arginine were given four times a day by oral, accompanied with nutrition medicine and hyperthermia.



Results

Efficacy

- For HCC, OC and MBC, QOL significantly improved.
- Tumor-bearing survival time achieved to 3+ years, 2 years and 7 months for HCC, OC and MBC, respectively .
- ECOG pain score decreased to 2/2/2 from 3/3/3.
- NRS score decreased to 2/1/2 from 5/4/6.
- For HCC and MBC, SD were noted
- For OC, multi-lung metastasis were disappeared.

Safety and Tolerability

- Side effects which were greater than grade 1 according to the CTCAE 3.0 were not observed.

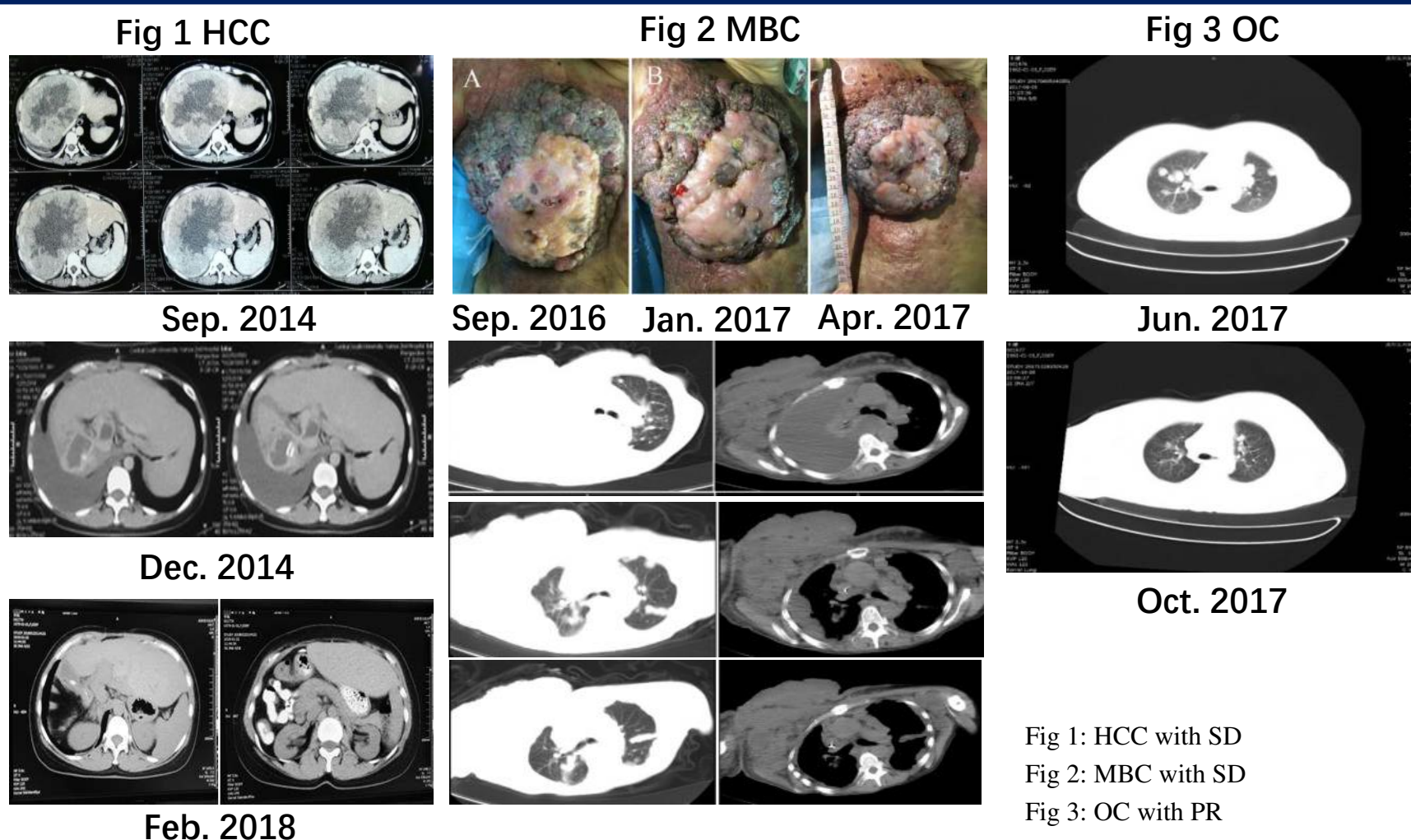


Fig 1: HCC with SD
Fig 2: MBC with SD
Fig 3: OC with PR

Drug analysis

Sheng Huang herbal extractive medicine

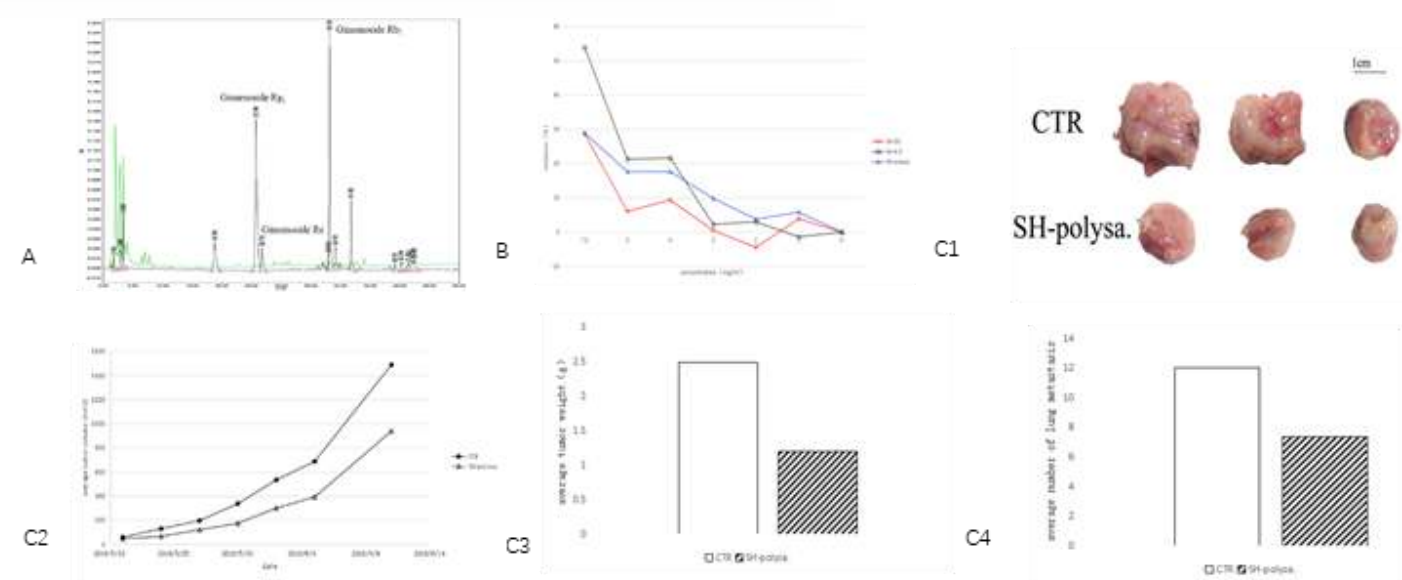


Fig. 5 **A:** Saponins (SH-ZG) and polysaccharides (SH-polysa.) were separated from Shenghuang Drug and analyzed by HPLC. Ginsenoside Rg₁, ginsenoside Re and Ginsenoside Rb₁ were detected in the sample. **B:** Proliferation of SH-ZG and SH-polysa were tested by MTT using 4T1 cells. The direct inhibition rate was not up to 30%. **C:** Xenograft 4T1 breast cancer were treated with SH-polysa. C1-3: The average tumor volume and average tumor weight of SH-polysa group significantly decreased compared to control group (P<0.05). C4: The lung metastasis numbers were decreased.

Xianhe Baijiang herbal extractive medicine

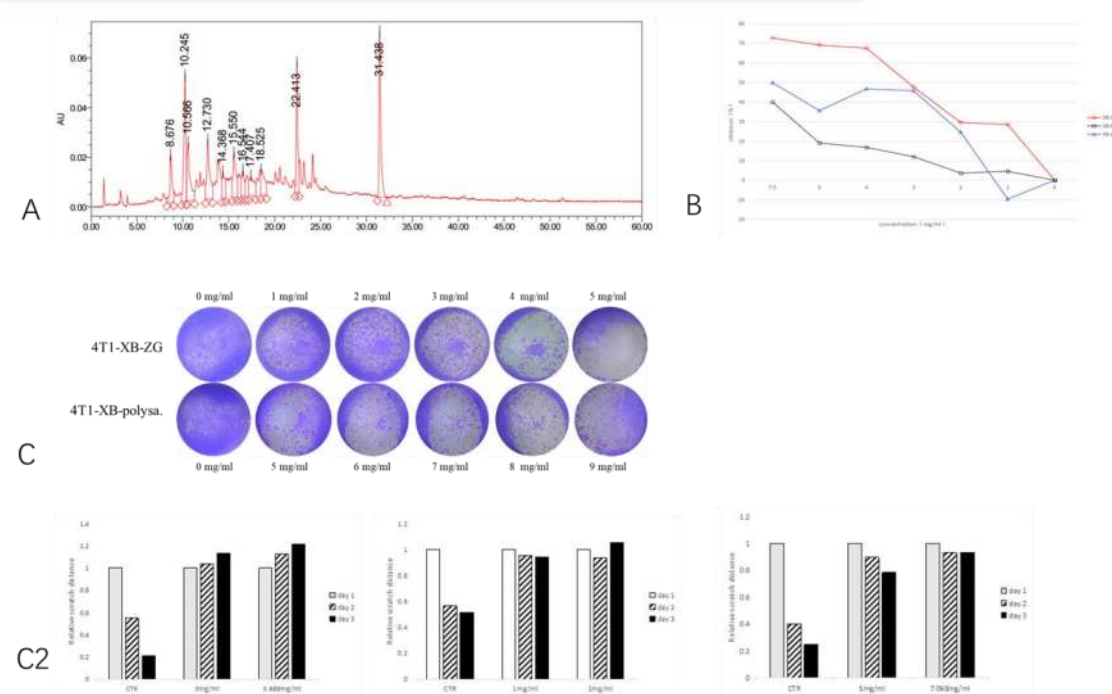


Fig. 6 **A:** (XB-ZG) and polysaccharides (XB-polysa.) were separated from Xianhe Baijiang drug. After HPLC analysis, a component having a special ultraviolet absorption peak was founded and we used semi-preparative chromatographic system to separate this component. HPLC-MS analysis indicated that the component may flavonoids. **B:** 4T1 breast cancer cell viability could be inhibited by XB-ZG and XB-polysa., IC₅₀ of XB-ZG to 4T1 is 3.367 mg/ml by MTT. **C:** C1: 4T1 cell line was treated with XB-ZG and XB-polysa. Cell clon was tested by crystal violet staining. XB-ZG and XB-polysa inhibited proliferation were dose dependence. C2-4: The relative scratches distance among groups.

Conclusion

- Herbal extractive medicine(HEM) demonstrated an effective for patients who failed at standard treatment regimen.
- HEM was acceptable with safety profile
- HEM provide a palliative care treatment option for patients as III/IV line therapy.