



## Research Letter

## Implication of tumor regression by a three-dimensional human body polarity system formed with human body anatomical axes

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## To the Editor,

The interaction between human bilateral parts via the left–right axis has been shown to cause consistent short- and long-term effects, such as improvements or eradication of pain, infection, degenerative diseases, organ dysfunction, and malignant change, and is named Ou MC decrescendo phenomenon (OuDP) [1–3]. The improvement of degenerative diseases, organ dysfunction, and malignant change by OuDP indicates the normalization of cell function. Cell polarity defined as asymmetry in cell shape, protein distribution, organelle distribution, and cell function is essential to normal cell function. The loss of cell polarity of cancer cells has been shown to be related to abnormal cell function as evading apoptosis, uninhibited cell replication, invasion, and metastasis, and is a hallmark of cancer cells [4]. Thus, if cancer cell polarity can be normalized or reinforced, it may “normalize” the function of mutant cells and make them conform to the regulations and supervision for normal cells and eventuate a cancer regression [3,5].

Recent studies have shown that the signaling system of embryonic axes imparts the polarization of individual cells in *Drosophila* [6]. Mammals also have multiple versions of each *Drosophila* polarity gene. Such polarity systems also play an important role in the existence of all vertebrates (including humans), from the earliest stage of embryonic development to adult life for normal cell functions [7]. Thus, human body anatomical axis (HBAA) may probably also impart the polarity of individual cells as embryonic axes do. Our past studies have shown that OuDP was induced mainly with the contralateral hand on the

diseased area, whereas the ipsilateral hand did not cause a prominent effect—that OuDP is presumed to be caused by the interaction with HBAA [1–3,5]. Thus, interactions among more HBAA may enhance the effect of OuDP.

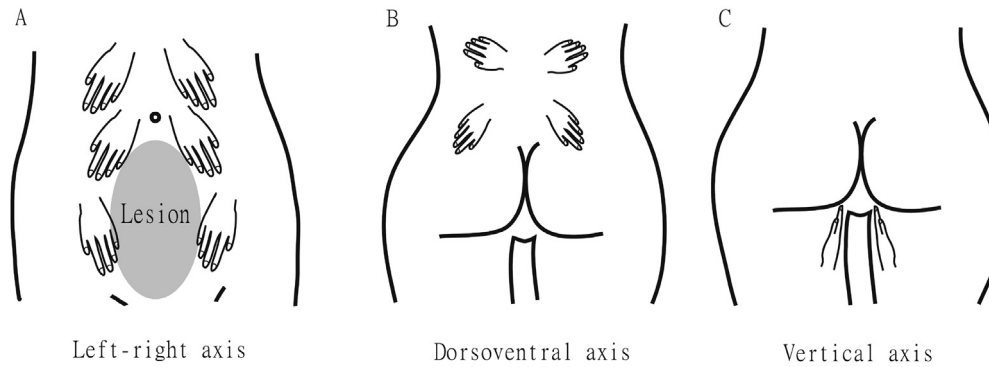
OuDP treatment (OuDPt) for neoplastic diseases is mainly performed by placing the contralateral hand over the site of the lesion by the patients themselves. While performing OuDPt, the contralateral hand is placed over the lesion along the HBAA of left–right, dorsoventral, or vertical axis. OuDPt is typically performed for 5–10 minutes on each site, 2–3 times a day [5]. An illustration of the application of OuDPt for abdominal neoplasm is shown in Figure 1, and practical points for OuDPt application are summarized in Table 1.

Although complementary therapy is not considered part of medical technology or care by the law in Taiwan (Department of Health, Executive Yuan, Taiwan ROC, 1993), all patients provided consent for treatment with OuDPt and to have the details of their cases, including radiographic images, published [1–3,5,8].

From 2006 to 2015, 148 patients received OuDPt: 89 for acute abdomen diagnosis and 59 for disease treatment [1–3,5]. OuDP was observed to alleviate or cure infectious and noninfectious diseases in a vast majority of cases. Only three patients with pelvic inflammatory disease did not show any prominent pain relief. OuDPt showed therapeutic benefits for the neoplastic diseases of eight patients, three of whom did not receive other anticancer treatments to date for their respective diseases: endometrial cancer, ovarian cancer with carcinomatosis, and suspected pancreatic cancer. The neoplasm of these three patients had been improved by OuDPt via two HBAA [5], but progressed clinically later as described below.

The endometrial cancer with pathology as grade 1 endometrioid carcinoma in a 49-year-old woman initially regressed from stage IIIB in May 2014 to stage IA in October 2014 with OuDPt via left–right and vertical axes (Figures 1A and 1C) [3,5,9]. Afterward, she performed OuDPt only through left–right and dorsoventral axes (Figures 1A and 1B); however, the cancer was found to progress to the vagina and was classified as stage IIIB on April 6, 2016 (Figure 2A1). On March 31, 2016, her serum displayed the following

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**Figure 1.** Ou MC decrescendo phenomenon treatment with multiple human body anatomical axis interactions for abdominal neoplasm.

**Table 1**

Practical points for the self-administered Ou MC decrescendo phenomenon treatment (OuDPt).

1. The OuDPt is performed by the patients themselves by placing the contralateral hand directly on the affected area via left–right, dorsoventral, or vertical human body anatomical axis.
2. For lesions on or adjoining the midline of the body, the OuDPt is applied first to one side of the lesion and then the other, using the contralateral hands.
3. The effects of the OuDPt are related to the duration and frequency of administration, and the distance between the hand and the lesion.
4. If OuDPt is not efficacious, measures such as getting the hand nearer to the lesion, and increasing the duration or frequency of administration may be helpful.
5. Different positioning may be useful when performing the OuDPt. For example, when treating lumbosacral pain, the patient may wish to lie down supine with the contralateral hand beneath the affected lumbosacral and adjoining areas.
6. Severe emotional disturbance may possibly affect effectiveness.

details: carbohydrate antigen 125 (CA125), 101.6 U/mL; CA199, 29.6 U/mL;  $\beta$ -human chorionic gonadotropin (HCG), 5.2 mIU/mL; FSH (follicle-stimulating hormone), 12 mIU/mL; LH (luteinizing hormone), 4.58 mIU/mL.

The ovarian neoplasm with solid and cystic part accompanied by omentum stranding, mild ascites, and pleural effusion in a 56-year-old woman was found incidentally on an incidence of tarry stool with severe bilateral lower extremity edema via a computed tomography scan on October 21, 2015, which showed an image of ovarian cancer with carcinomatosis. The lower extremities edema resolved immediately when OuDPt was performed on the abdomen via the left–right axis (Figure 1A) [5]. From then on, the ovarian tumor showed no prominent growth. Magnetic resonance imaging (MRI) performed on January 15, 2016 showed the tumor, with its top maintaining at the level beneath the fourth lumbar spine, with OuDPt being applied via left–right and dorsoventral axes (Figures 1A and 1B) [5]; the patient's CA125 was 34.7 U/mL on October 22, 2015, and 36.7 U/mL on January 14, 2016 [5]. However, the MRI on May 23, 2016 revealed that the tumor has expanded up to the level of the third lumbar spine (Figure 2B1) along with carcinomatosis, which trapped a segment of the intestinal loop on the tumor, and her CA125 was 62.9 U/mL on May 17, 2016.

The suspected pancreatic cancer of a 51-year-old woman showed an isodense nodule about  $1.6 \times 1.7$  cm at its largest dimension with a dilated tortuous main pancreatic duct with a diameter of about 0.39 cm (Figure 2C1) on May 29, 2014. Stage IA pancreatic cancer was tentatively presumed. The patient received OuDPt via left–right and dorsoventral axes (Figures 1A and 1B), and her CA199 decreased from 1090 U/mL on May 26, 2014 to 170.5 U/mL on June 11, 2014, but increased again to 241.8 on June 30, 2014 [3,5].

Thus, all these three patients performed OuDPt with all three HBAAAs (Figures 1A–1C), which formed a three-dimensional (3D) polarity system, and the results are described below.

The endometrial cancer regressed from the vagina to the uterine cervix as stage IIIB to stage II after about 3 months of treatment (Figure 2A2); CA125 decreased to 62.6 U/mL, CA199 decreased to 15.3 U/mL, and  $\beta$ -HCG decreased to less than 0.1 mIU/mL on August 4, 2016. FSH of 9.0 mIU/mL and LH of 6.35 mIU/mL were recorded on August 25, 2016.

The top of the ovarian tumor shrank to the level beneath the fourth lumbar spine, with no intestinal loop trapped by carcinomatosis to the tumor on August 16, 2016 after treatment of about 3 months (Figure 2B2). The CA125 value decreased to 31.2 on August 12, 2016.

The size of the pancreatic isodense tumor decreased to  $1.02 \times 0.96$  cm on October 6, 2014, as measured at its largest dimension, after about 4 months of treatment [3,5]. Meanwhile, the main pancreatic duct diameter decreased to 0.14 cm with the disappearance of tortuosity (Figure 2C2) [3,5]. The CA199 for the suspected pancreatic cancer decreased to 52.3 U/mL on January 29, 2015, and no tumor was visible by sonography on May 26, 2015. Nonetheless, thereafter this patient performed OuDPt occasionally (about 1–2 times/wk) via left–right and dorsoventral axes only (Figures 1A and 1B). The MRI performed in April 2016 showed no definite signs of pancreatic tumor; however, the main pancreatic duct dilated to 0.4 cm with increased tortuous appearance and CA199 increased to 114.5 U/mL, which might indicate that the tumor was not cured.

Thus, our studies show that OuDPt with the 3D human body polarity system comprising left–right, dorsoventral, and vertical HBAAAs suppresses the development of the neoplasm more efficiently than OuDPt with the 2D polarity body system. 3D tissue organization has been reported to be a potential noncanonical tumor suppressor that prevents the manifestation of neoplastic features in mutant cells and, ultimately, suppresses tumor development and progression. For example, cells in chicken embryos infected with v-Src containing virus do not show a malignant phenotype, but when the same cells are dissociated and placed in culture, they show a massive transformation [10]. The 3D tissue organization model has been hypothesized as normal cells use their internal cell-polarity mechanisms to establish a polarized 3D tissue organization, which, in turn, uses the apical junctional complexes and cell-substratum adhesions to reinforce and maintain the polarity of the mutant cells with disrupted internal cell polarity pathways [10]. Similarly, the interactions among multiple HBAAAs with OuDPt also render a 3D organization model as that by the hypothesized 3D tissue organization, which shows to reinforce cell polarity of the mutant cells and attenuates proliferation and



**Figure 2.** The tumor prior to and after Ou MC decrescendo phenomenon treatment with three human body anatomical axes. (A) Magnetic resonance imaging (MRI; T2, drop) for endometrial cancer. (A1) Tumor involvement of uterine cervix and vagina prior to treatment. (A2) Tumor regression from uterine cervix and vagina after treatment. (B) MRI (T1, fat saturated, contrast enhanced) for ovarian cancer. (B1) Tumor growing up to lumbar III level prior to treatment. (B2) Tumor beneath the level of lumbar IV after treatment. (C) Computed tomography for the pancreatic main duct of suspected pancreatic cancer IA. (C1) Main pancreatic duct dilated to 0.39 cm in diameter (arrow) with tortuous feature prior to treatment. (C2) Main pancreatic duct became smooth in feature and the diameter decreased to 0.14 cm (arrow) after treatment.

invasion of the variable morphogenic mutant cells. However, our studies show that OuDPt may probably directly normalize the dysfunctional cells rather than indirectly through reinforcement by the neighboring normal cells, for which OuDP has been shown to render immediate effects on pain, inflammation, and uterine neoplasm bleeding, which is too fast to consider as an indirect effect [1–3,5].

Interactions involving more HBAA have been shown to be more effective in inducing tumor regression, which indicates that the effect of OuDPt is associated with HBAA interaction. The OuDPt via interactions of two HBAA suppressed tumor progression temporarily, but eventually proved insufficient to inhibit the tumor growth until more HBAA were used. This indicates that the anomaly of cancer cell polarity may be variable and can escape the

control of OuDPT with less HBAAAs. Abnormal cell polarity has been shown as a causative factor for cancer development, and further management to reinforce cell polarity may attenuate the proliferation and invasion of cancer cells [11].

### Conflict of interest

The authors have no conflicts of interests relevant to this article.

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