The Oncologist®

Commentary

The Yin-Yang of Guidelines and Disparity

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Disclosures of potential conflicts of interest may be found at the end of this article.

A guideline is a consensus statement that determines a course of action. When one patient population is treated according to a guideline and another population is not, treatment outcomes for the two populations may be disparate. Disparity implies absence of equality. In an ideal world in which all treatments comply with guidelines, there should be no disparity. The question is whether all patients should be treated according to guidelines to avoid disparity.

In the current issue of ***The Oncologist***, Yang et al. [1] address an important issue with potential implications for one-quarter of the world's population. The authors retrospectively reviewed 2,535 lung cancer patient records from Guangdong Lung Cancer Institute (GLCI), the largest leading lung cancer research facility in the People's Republic of China, and reported treatment disparity for 45.3% of patients. Their definition of "disparity" is the difference in compliance rates based on the standard guideline developed by the Lung Cancer Diagnosis and Treatment Expert Panel of the Chinese Ministry of Health. The main disparity is the difference in compliance rates between patients treated at GLCI and at other hospitals.

Understanding guideline compliance is important, but understanding the treatment outcomes associated with compliance is more important. Yang et al. convincingly illustrated that the guideline was routinely followed in treating about 80% of patients at GLCI, whereas only 50% of patients from outside hospitals were treated in accordance with the guideline [1]. However, the authors did not provide any treatment outcomes or survival data for the studied populations or individual data on reasons for noncompliance. We should not automatically assume that the higher compliance rate is associated with better treatment outcomes. For example, 21.6% of stage I non-small cell lung cancer patients received adjuvant chemotherapy when the guideline suggested against chemotherapy, and 20.1% of patients with stage II disease did not receive chemotherapy when the guideline recommended it. In fact, selected patients with stage IB disease should receive adjuvant chemotherapy. Subgroup analysis from the Cancer and Leukemia Group B 9633 study suggested that stage IB disease with tumor size >4 cm benefited from adjuvant paclitaxel and carboplatin [2]. In contrast, patients with comorbidity and poor performance should not receive adjuvant chemotherapy for stage II disease. Without the details of specific cases, Yang et al. may have oversimplified the situation by associating noncompliance with bad practice.

It is indisputable that all guidelines should be evidence based, but evidence evolves over time. In the 10-year period between 2004 and 2013, there were dramatic changes in treatment paradigms for advanced stage lung cancer. According to the authors [1], the expert panel issued the first guideline in 2003 and revised it in 2012. Because the majority of the enrolled patients were actually treated before 2012, the official guideline to follow should have been the 2003 version, which I believe to be extremely outdated. In this case, a first-line EGFR tyrosine kinase inhibitor (TKI) for patients with EGFR mutation would not have been part of the 2003 guideline (EGFR mutation was discovered in 2004). Does that mean that all patients who received a first-line EGFR TKI were considered noncompliant with the 2003 guideline until the revised version was issued in 2012? Guidelines must be updated frequently to maintain their relevance.

Yin-yang is a Chinese philosophy acknowledging that things that appear to be contrary are actually complementary. Defining noncompliance with guidelines as creating disparity is an overstatement. Guidelines are not absolute, and neither is disparity. Guidelines provide a simplified direction or general method of treatment for a specific medical condition and are not mandatory. All doctors should examine the guidelines and use their judgment with regard to treating individual patients. There must be a rational reason for either following or not following a guideline. Examining disparity is a sound exercise and should complement use of guidelines, but the exercise can be sound only if the treatment outcomes are disparate. Yin and yang reflect the balance of contrary forces in nature, and the same balance is essential for guideline use and disparity.

DISCLOSURES

Tony Mok: AstraZeneca, Boehringer Ingelheim, Roche, Lilly, Merck, Eisai, Serono, Bristol-Myers Squibb, AVEO, Pfizer, Taiho, BioMarin, Novartis, Clovis, Amgen, Janssen, GlaxoSmithKline (C/A, H); AstraZeneca (RF); The Chinese University of Hong Kong (E).

(C/A) Consulting/advisory relationship; (RF) Research funding; (E) Employment; (ET) Expert testimony; (H) Honoraria received; (OI) Ownership interests; (IP) Intellectual property rights/inventor/patent holder; (SAB) Scientific advisory board

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