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New Communication Model in Medical Dispute Resolution in Japan

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(Accepted November 5, 2012)

Abstract

The dialogue-facilitative in-house mediation model for medical disputes (medical mediation) that Wada and Nakanishi have proposed is a medical conflict management method that uses redefined mediation skills. Medical mediation attempts to minimize emotional hostile conflict and improve less-satisfactory resolutions, like in litigations in which issues are narrowly limited and important need of parties like sincere emotional response is ignored. Instead it attempts to cooperatively and flexibly resolve issues that are raised between patients and medical providers following a medical adverse event. Based theoretically on social constructionism our in-house medical mediation model deconstructed concepts and ideas of widely spread orthodox mediation model, adopting a narrative approach which focuses on transformation of parties’ emotions, feelings, perspectives and hidden invisible interest. This model fits the philosophy of medical conflict management and has been developed based on dialogue between patients and medical providers.

Key words: medical conflict management, alternative dispute resolution, Japanese medical mediation

Introduction

According to statistics from the Japanese Supreme Court, the number of medical malpractice lawsuits has increased at a rate of 7 to 8% per year, and 1,107 cases were filed in 2004. In 2000, the number of cases in which judgment were delivered was 674; the number of filed medical malpractice lawsuits was 767; the number of pending trials was 1,886. Pending trials have not yet had a judgment delivered, nor have they reached an agreeable settlement. These numbers have been increasing each year.1

Under these circumstances, medical providers tend to place an emphasis on acquiring legal knowledge for prevention of medical malpractice law suits.2 However, the process to deliver legal judgments is more complicated, and acquiring the preventive legal knowledge is not enough to appropriately respond to the current circumstances concerning medical malpractice disputes in Japan. The building of preventive knowledge and policies is superficial and insufficient preparation in some cases. Simply arming medical providers with legal knowledge regarding medical malpractice disputes creates several issues: (1) the knowledge gained does not adequately address the emotional reactions from the patient(s) who file a case; (2) the relationship between patients and medical providers who acquire legal knowledge is worsened because the medical providers tend to perceive patients as opponents; and (3) medical providers tend to obtain an informed consent to avoid future medical malpractice disputes, which is not the original purpose of the informed consent.3

Many patients who file lawsuits are seeking an appropriate response to their feelings and emotions, and sincere explanation on the accidents rather than legal resolution. Therefore, many victims who experienced an adverse event maintained that the reason why they brought a case to a court was medical provider’s inappropriate response to their expression of injured emotion. On the contrary, if medical providers respond to and sympathetically understand the victim’s injured emotions, they tend not to file a lawsuit, even if they have grounds and evidence.4 It is desirable that each dispute resolution mechanism disposes of parties’ complex need appropriately, fairly, quickly at a reasonable
cost. From this point of view, a lawsuit is not the best mean, because it exclusively focuses on legal issues and legal frameworks. As a result, the lawsuit ends only limited legal resolution that generates a clear winner and loser, leaving a hostile relationship unchanged. Therefore, it is difficult for courts to handle various issues including fundamental causes embedded in imperfect healthcare system, social effects of medical malpractice lawsuits like accelerating defensive medicine and shortage of doctors in risky department.

Alternative dispute resolution (ADR) can be an important answer to overcome this situation. It refers to process and techniques of solving disputes that fall outside of the judicial process (formal litigation-court). However numerous variations of procedures are found in ADR field, third party mediation and arbitration are main processes. In arbitration parties agree that they obey to arbitrator’s judgment. They can choose an arbitrator who is not necessarily a lawyer. Its procedure is similar to law suits. In mediation parties try to make mutual agreement with help of a mediator. In Japanese court annexed mediation, ‘chotei’, a mediator proposes agreement and gives legal advice to parties, although in Anglo-American mediation, mediators refrain from giving advice and limit their role in facilitating parties’ dialogues.

In point of fact, many countries are trying to establish effective ADR model including panel screening, arbitration and court annexed mediation where, in some extent, extralegal elements of medical conflict can be handled. Indeed, ADR performs indispensable roles in many fields of disputes. In North America, ADR was developed in 1970s, as a reaction to unreasonable increase of law suites. In Japan, ADR has also been extensively used as a tool for dispute resolution in various areas and in various forms including the court annexed mediation for civil and family disputes, Arbitration Centers run by bar association, the ADR for traffic accidents and so on

Table 1 shows comparison of each country’s policy for medical malpractice disputes and the complaint resolution scheme. Table 2 outlines a comparison of mediation models.

<table>
<thead>
<tr>
<th>Professional title</th>
<th>Japan</th>
<th>France</th>
<th>U.K.</th>
<th>U.S. (University of Michigan)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medical dialogue mediator</td>
<td>Hospital mediator (mediator hôpital)</td>
<td>1. Complaint Manager</td>
<td>1. Risk Manager</td>
</tr>
<tr>
<td></td>
<td>In-house medical mediator</td>
<td></td>
<td>2. PALS (Patient Advice &amp; Liaison Service)</td>
<td>2. Patient Advocate</td>
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<table>
<thead>
<tr>
<th>Personnel involved</th>
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<th>U.K.</th>
<th>U.S. (University of Michigan)</th>
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<tbody>
<tr>
<td></td>
<td>Medical staff</td>
<td>Medical staff</td>
<td>1. Medical staff</td>
<td>1. Medical staff</td>
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<tr>
<td></td>
<td>Administrative staff</td>
<td>2. Administrative staff</td>
<td>2. Administrative staff</td>
<td></td>
</tr>
<tr>
<td>Welfare staff</td>
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<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Is a mediation model used?</th>
<th>Japan</th>
<th>France</th>
<th>U.K.</th>
<th>U.S. (University of Michigan)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Japanese in-house medical mediation model used (currently, increasingly)</td>
<td>Techniques from all models used</td>
<td>Techniques from all models used</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Legal requirements</th>
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<th>U.K.</th>
<th>U.S. (University of Michigan)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Remuneration</td>
<td>Appointment of mediators</td>
<td>Appointment of mediators</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: International Comparison of Internal Personnel Dealing with Medical Disputes and Accidents and Mediation Models Used

This result is based on the research of Toyota Foundation in 2012.
There are several methods to resolve disputes including negotiation, mediations, and arbitration (Figure 1). Negotiation takes place between interested parties without neutral third party. Table 3 shows differences between negotiation and mediation. In contrast, mediation promotes agreement with the help of an impartial third party who facilitates parties' direct conversation, and it is therefore called a facilitative mediation model. In arbitration, the impartial third party judges and makes a decision, and there is an agreement between the interested parties to abide by the decision (Figure 1).
However, in our opinion, there are reasonable doubts on usefulness of third party ADR procedure in medical disputes following medical adverse events or mishaps. Firstly, compared to other areas, emotional conflict is extremely sharp and deep. Secondly, unlike traffic accidents in which emotional conflict can also be deep, but a wrongdoer’s position and a victim’s position can be theoretically exchangeable, there is no such an exchangeable relationship between doctors and patients. Thirdly, it requires specialist knowledge to evaluate and understand the meaning of negligence and causation. Moreover, when disputes are brought into such third party institutions, patient’s family tends to already have lost trust in doctors and hospitals. As long as patient’s family wants sincere explanation, apology and appropriate reaction to their emotions, it should be much more effective that doctors and medical providers directly respond to their needs in a hospital just after the mishaps have happened.

However, misunderstandings and conflicts may escalate in the process of direct conversation in disclosure explanation, even when doctors are sincere and honest, because of the difference of socially constructed perspectives on healthcare and medical mishaps between doctors and patients. Moreover, shortage of information and a lack of sympathetic understanding of the other party’s view tend to escalate emotional conflict.

Based on these thoughts, in Japan Wada and Nakanishi20,21 have proposed in-house medical mediation model in which in-house mediators help and facilitate sincere conversation and rebuilding of harmonious relationships between patient’s family and doctors utilizing mediation skills.

I consider that facilitative mediation model (Figure 2), is most suitable in disclosure and early stage dispute conversation in medical disputes after medical adverse events in which both parties recognize and evaluate the situation in different way. I suggest that conversation process of an in-house facilitative mediation as the first step of dispute resolution is effective and useful in reducing emotional confusion, promoting information sharing and bringing perspective transformation of both parties who are caught with anger, anxiety and guilty feelings220 (Table 4). However, in order to fulfill this purpose effectively in medical dispute settings, typical facilitative mediation model should have been modified adopting another theoretical perspective.

### Table 3: Differences Between Negotiation and Mediation

<table>
<thead>
<tr>
<th></th>
<th>Negotiation</th>
<th>Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Maximizing one’s own interests</td>
<td>Creating new values</td>
</tr>
<tr>
<td><strong>Framework</strong></td>
<td>Negotiating interests</td>
<td>Process of cooperative dialogue</td>
</tr>
<tr>
<td><strong>Frame of perception</strong></td>
<td>Fixed—no change</td>
<td>Changes flexibly</td>
</tr>
<tr>
<td><strong>Points of contention</strong></td>
<td>Fixed—no change</td>
<td>Changes flexibly</td>
</tr>
<tr>
<td><strong>Relationship</strong></td>
<td>Frequently deteriorates</td>
<td>Improves</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>Win-Lose</td>
<td>Win-Win</td>
</tr>
</tbody>
</table>

Figure 2: Style of Medical Mediation

The mediator acts as a neutral third party position in a dispute, encouraging dialogue through empowerment, thereby enabling the counterparties to reach an agreement.
New Medical Dispute Resolution Model

<table>
<thead>
<tr>
<th>Conventional dispute resolution</th>
<th>Mediation (cooperation-based)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(arbitration-based)</td>
<td>Adopting a third-party perspective</td>
</tr>
<tr>
<td>Bilateral confrontation</td>
<td></td>
</tr>
</tbody>
</table>

- Persuasion or apology based on value judgments
- Reacting to the counterparty’s demands
- Responsibility lies with the individual
- Responsible to the hospital

Active Listening with an open ("unassuming") mind
Drawing closer to the counterparty’s deeper aspirations
Creating a forum for dialogue between the departments involved
Not responsible to the hospital

Table 4: Comparison of Two Dispute Resolutions in Japan

The Comparison of In-house Mediation Model and Typical Mediation as a third Party Dispute Resolution Mechanism

In widely accepted idea of typical third party mediation model aims at obtaining mutual agreement in win-win manner. In order to attain win-win resolution, it tries to analyze dispute utilizing concepts of issue, position and interest that proposed in “Getting to Yes.” It emphasizes importance of interest as fundamental need or desire of each party and finding out options for resolution based on their interest. Although this idea is very useful in general, it can be too simple and too static, when applied to medical conflict where the emotion and perception of parties are confused, and their interest itself is continuously transforming.

Borrowing basic wording and ideas from this prevailed orthodox facilitative mediation model, we redefines them and creates new analysis method and skills suitable to early stages of medical dispute after adverse events. Social constructionism, which is also known as the theoretical basis for narrative based medicine and narrative therapy, gives important theoretical hints to deconstruct the basic words and concepts of mediation.

It emphasizes relative nature of each party’s perception of the problem and situation which is formed through his/her formation of perspectives framed by dominant narratives shared by people. Needless to say, there are deep differences between doctors constructed reality formed on the basis of specialist knowledge and everyday perspective as a medical provider and patient’s one formed his/her individual experiences. However this also implies that their perspective on the problem and hidden invisible interest can be transformed through conversation, which process is called deconstruction in the theory of social constructionism.

Mobilizing these theoretical perspectives, we built up ideas of mediation much more suitable ones to medical dispute situations. This approach was first proposed by Wada and Nakanishi in Japan and is in the process of transplantation into China and Taiwan as Japanese model for in-house medical mediation.

The advantages of this model include multidimensional approaches to promote the resolution of medical disputes. This approach aims not only at resolving direct disputing issues, taking account of medical, the legal, and psychological points, but also at rebuilding truthful relationships between doctors and patients by facilitating the process in which both parties recover from and overcome unfortunate experiences caused by unexpected medical adverse events or mishaps. Therefore, the purpose of in-house mediation is to promote effective communication, reflecting various patient and social need such as understanding of emotional grief-need to improve health policy or systems without wasting the experience of the accidents. To realize such process this model mainly focuses on information sharing and transformation of perspectives not like typical mediation model in which problem-solving in a win-win manner is pursued. In addition, in-house mediators never make evaluation on issues nor suggest agreement nor even express any opinions, based on the belief that medical providers and patients/families have power to manage their conflicts for themselves.

The following points illustrate the distinctiveness of the Japanese healthcare mediation approach.
1) Japanese in-house medical mediation is theoretically based on social constructionism.

2) Adopting this theory, our model can redefine the concepts of interests, positions, and issues that are commonly used in the typical mediation model, integrating parties’ perceptions, emotions, factual information, and the process of the emergence of the grievance in a much more dynamic way.

3) In other words, the Japanese model places much value on the process of gradually transforming parties’ subjective narratives and perceptions on issues, positions, and interests, through dialogue.

4) Its purpose is making both patients and doctors reconstruct their realities on medical adverse events or problems through sympathetic conversations, aided by a mediator.

5) The Japanese model concentrates on building cooperative relationships with sympathetic care for emotional disorder and deliberate ethical attention.

6) Therefore, the Japanese in-house medical mediation model usually does not handle legal issues and compensation. These legal issues would be disposed by another department or person after a trustful relationship is built through healthcare mediation.

In the practice of this mediation, the interests of both patients and medical providers can be extracted, highlighted, and appropriately addressed by promoting dialogue between patients, the patients’ family members, and medical providers. Thus, this method is called ‘Issue-Position-Interest (IPI) analysis’ (Figure 3). The concept is redefined by social constructionist perspective. It is able to function as an initial preventive tool for avoiding the further escalation of conflict. However, under the following situations, this model could not be applied.

1) The involvement of medical mediators is rejected by either party.

2) Either party resorts to violence.

3) Either party has significant mental health problems (such as borderline personality disorder).

4) The level of interest in depth is not incompatible among parties, (for example, a party’s interest is basically a malicious request for money).

Figure 3: Analysis of medical dispute

A unique IPI development model is used to discover both parties’ true issues. The layered, conical construction illustrates the dispute structure that facilitates an open dialogue process. Issues are named points of contention. Positions include assertion of facts, assertion of demands, and expression of emotions. They are difficult to resolve. Hidden interests are the fundamental latent desires.

Phases and Skills of In-house Medical Mediation Model

Typically, in-house medical mediation has three parts of the process.

1) Accepting Emotion

At the beginning of the process, patient and family are suffering strong sorrow and anger. Medical providers also are feeling strong tension and fear to face with patient’s anger. It is very important to sympathetically accept these feeling and listened to their sometimes attacking words. A mediator never understands these superficial attacking words literally; instead try to accept their deep sorrow and grief. Through this process, patient’s emotional confusion is calmed down and then begin to notice what he/she would like to know and what response they would like to receive from medical providers. Accordingly, medical professionals also become express their ideas with less feeling of fear.

2) Sharing Information

Then, the mediator helps each party to express their need and to make explanation through giving adequate questions. At this point, disclosure of information that is invisible to each other is facilitated.
with the help by a mediator. Information disclosed is not limited to medical records or other medical information. More emotional information like doctor’s feeling, when he was taking care of the patients is included. In most cases, patient and family want to listen to not only medical explanation, but also words expressing doctor’s sincere attitude. Through this phase, both parties began to recognize the situation different way based on rich information that otherwise they could not obtain.

3) Rebuilding trustful relationships

Finally, both parties accept the other party’s perception as understandable one, although there still be some difference. Based on this mutual fundamental understanding, both party continue to exchange information and ideas. In many cases where no legal negligence, patient and family accept doctor’s explanation on an adverse event, as long as a medical provider sincerely understand patient’s perspective and show sympathetic attitude. Throughout these phases a mediator mobilize active listening skills, modified method of position-interest analysis and narrative facilitation skills.

The Effectiveness of Mediation in Clinical Situations

Among patients who experienced lawsuits, 66% were unsatisfied with their attorneys-at-law, and 71% were critical of legal outcomes\(^{25}\). Both patients and medical providers desire direct, faithful dialogues, which cannot be realized within the legal framework\(^{26}\). Moreover, partnership-oriented health care is also desired in Japan. This idea should be applied even when medical adverse events happened.

Medicine and medical procedures consist of interactions between the people involved including patients, patient family, doctors, and other medical providers. Hall JA et al.\(^{27}\) reported that the more information and communication medical providers offered to patients, the more satisfied the patients were. Cleary P et al.\(^{28}\) reported that doctors who were well trained in communication skills and expressed their emotions like understanding (compassion) and empathy, could get more patient satisfaction. Therefore, doctors should improve their communication skills in order not only to obtain patient information effectively and make an adequate diagnosis, but also to obtain greater patient satisfaction. The in-house medical mediation model could promote a trust relationship between patients and medical providers based on communicative interactions\(^{29}\).

Acknowledgement of In-house Medical Mediation in Japan

As Delbanco Tet al.\(^{1}\) mentioned, creating structured curricula for professionals addressing both error prevention and response is important. Wada and Nakanishi developed a curriculum of medical mediation training at the Japan Council for Quality Health Care, and have already trained more than 10,000 medical providers. The Japan Association of Healthcare Mediators were establish in 2008 and certified 2,192 in-house medical mediators by October 2012\(^{31}\). In addition, on 7 December 2011, the data showing effectiveness of in-house mediator model were delivered and acknowledged at a meeting of the Central Social Insurance Medical Council of the Ministry of Health, Labour and Welfare as handouts\(^{32}\).

Conclusion

The new design of the Japanese in-house medical mediation model redefines analytical concepts of orthodox mediation model and adopts narrative approach based theoretically on social constructionism. Utilizing this approach it facilitates transformation of parties’ emotions, feelings, and interests in the early process of disputing conversation or of disclosure conversation after medical adverse events in hospital settings. This model can effectively perform desirable function for both patients and medical providers after medical adverse events by promoting sincere and rich conversation, information sharing and mutual acceptance of deep need and emotion between them.

Reference

2. Mori H, Ichikawa T: The Japanese trend surrounding medical malpractice lawsuits from the viewpoint of judicial


高度縦隔偏位を伴った左肺全摘術後症例に対する僧帽弁置換術

内田徹郎, 皆川忠徳, 金 哲樹, 前川慶之, 水本雅弘, 山下 淳, 中村 健, 吉村幸浩, 貞弘光章

山形大学医学部外科学第二講座（循環器・呼吸器・小児外科学）
（平成 24 年 10 月 12 日受理）

抄録

症例は 64 歳、女性、肺結核に対する左肺全摘術の既往を有する。呼吸困難と動悸を認め、僧帽弁閉鎖不全症、三尖弁閉鎖不全症および心房細動と診断された。胸部 CT で、心臓は高度に左方偏位し、右肺は正中を越えて張り出していた。胸骨正中切開で内胸動脈採取用の開胸器を使用し、左胸腔に張り出した右肺を胸壁から剥離した。大動脈細靜脈と上大静脉から体外循環を確立し、経心房中隔アプローチで僧帽弁置換術と三尖弁形成術を施行した。人工心肺の置換は問題なく、術後経過は良好であった。肺全摘術後の症例に対して開胸術を行う際は、術前の呼吸機能、高度の縦隔偏位に対してのアプローチおよび術後の呼吸器系合併症の予防に注意を払うことが重要である。

キーワード：左肺全摘術、僧帽弁置換術

はじめに

今回われわれは、左肺全摘術後に高度の縦隔偏位をきたした症例の胸骨正中切開による僧帽弁置換術 (MVR) と三尖弁形成術 (TAP) を経験した。アプローチや術野の展開に要した工夫を示し、若干の文献的考察を加えて報告する。

症例

症例：64 歳、女性

主訴：呼吸困難、動悸

既往歴：30 歳に肺結核に対して左肺全摘術を施行された。

現病歴：30 歳時に肺結核に対して左肺全摘術を施行された。

現症：身長 153 cm、体重 43 kg、心尖部に Levine Ⅲ/Ⅵの収縮期雑音を聴取した。左前胸部に呼吸音を聴取した。

心電図：心拍数 68 bpm、心房細動

呼吸機能：努力性肺活量 (FVC) 2.1 L、％FVC 90.1、1 秒量 (FEV1) 1.4 L、1 秒率 (FEV1%) 64.2%。

血液ガス：pH 7.45、pO₂ 83.5 Torr、pCO₂ 40.5 Torr、BE 4.0 mEq/l、HCO₃⁻ 27.8 mEq/l

胸部単純 X 線写真：CTR 57%、左肺野の透過性は低下しているが、上肺野に含気あり。

胸部 CT：縦隔は左方に偏位し、右肺は正中を越えて、左胸腔に達していた（図 1）。
壁を挙上させ（図2）、壁側胸膜に包まれた右肺を剥離した。右肺の剥離を左胸壁面まで行い心膜に達した。次いで心膜と右肺の剥離を進めた。心胸の前方で心膜を切開し、切開した右側の心膜を牽引糸で胸壁に固定することで、膨張した右肺を右胸腔内に収納した。心包内に着着を認めたため、可及的に剥離した。大動脈の視野は不良であったが、右房と左大静脉の展開は問題なかった。右大静脉動揺血、右大静脉静脈と左大静脉に脱血管を置き、体外循環を開始した。右上肺静脉から左房へ挿入した。大動脈を遮断し、順行性および逆行性心筋保護液注入で心停止を得た。右側左房切開アプローチによる僧帽弁の視野展開は困難と判断し、心房切開を切り換えたが、左胸の左胸腔への偏位が高度なため、僧帽弁の視野は不良であった。前後に高度の肥厚、硬化を認め、さらに後方に広範に逸脱していたため、MVPは断念し、MVRの方針とした。St. Jude Medical弁27 mm（St. Jude Medical社、セントポール）を用いたMVRとMC3リング32 mm（エドワーズライフサイエンス社、アーバイン）によるTAPを行った。大動脈遮断を解除し、体外循環を離脱した。心胸内に癒着を認めたため、可及的に剥離した。大動脈遮断を解除し、体外循環を離脱した。

考 察

片側の肺全摘術後の症例に対して開心術を行う上での手術手技上の留意点として、高度の縦隔偏位を伴う場合のアプローチの選択が挙げられる。肺全摘術後に死腔となった胸腔はフィブリン塊などの内容物で満たされることが多いため、この場合の縦隔偏位は比較的軽度にとどまり、通常の開心術と何ら変わらない。一方、心臓が摘出側の胸腔に大きく偏位し、心臓手術が困難になることがある。今回の症例は左肺全摘術施行から34年を経過しており、心臓は左側胸壁の後面に接するまで偏位し、右肺は正中を越えて大きく左胸腔へ張り出していた。しかし、肺全摘術から7、8年の経過で高度の偏位を認める症例も報告されており2,3、必ずしも術後期間が長い症例に限定した問題ではない。

左肺全摘術後の症例に僧帽弁手術を行う際の到達法として、左開胸と胸骨正中切開がある。開心術の既往がある左肺全摘術後の高度の縦隔偏位症例に対し開心術下に僧帽弁形成術を施行した報告がある4、5。左心耳から左肺静脈にかけて左房を切開して僧帽弁の視野を得る5、再胸骨正中切開を回避するための選択肢の一つである。胸骨正中切開の場合、直下には膨張した右肺があるため、肺を壁側胸膜とともに胸腔から剥離する必要がある。可及的に開胸しないことが明確の上で任意の手術手技の悪化防止に重要である。肺全摘術後の可動性が低下した患側の胸郭の展開に内胸大動脈採取用の開胸器を使用した報告がある5、本症例に使用した。開胸術の患側の胸壁のみを選択的に挙上することが可能となり、胸壁に着着した肺の剥離と十分な手術野の確保に極めて有効であると考える。また右側の心膜の牽引糸を密にかけ、胸壁に固定することで、陽圧換気下の右肺を右胸腔に収納することが可能であった。

術中写真

図2

内胸動脈採取用の開胸器と心膜牽引による術野展開。膨張した右肺を牵引した右側の心膜で右胸腔内に収納されている。

Ao：大動脈、RV：右心室、RA：右心房

考 察

片側の肺全摘術後の症例に対して開心術を行う上での手術手技上の留意点として、高度の縦隔偏位を伴う場合のアプローチの選択が挙げられる。肺全摘術後に死腔となった胸腔はフィブリン塊などの内容物で満たされることが多く、この場合の縦隔偏位は比較的軽度にとどまり、通常の開心術と何ら変わらない。一方、心臓が摘出側の胸腔に大きく偏位し、心臓手術が困難になることがある。今回の症例は左肺全摘術施行から34年を経過しており、心臓は左側胸壁の後面に接するまで偏位し、右肺は正中を越えて大きく左胸腔へ張り出していた。しかし、肺全摘術から7、8年の経過で高度の偏位を認める症例も報告されており2,3、必ずしも術後期間が長い症例に限定した問題ではない。

左肺全摘術後の症例に僧帽弁手術を行う際の到達法として、左開胸と胸骨正中切開がある。開心術の既往がある左肺全摘術後の高度の縦隔偏位症例に対し開心術下に僧帽弁形成術を施行した報告がある4、5。左心耳から左肺静脈にかけて左房を切開して僧帽弁の視野を得る5、再胸骨正中切開を回避するための選択肢の一つである。

胸骨正中切開の場合、直下には膨張した右肺があるため、肺を壁側胸膜ともに胸腔から剥離する必要がある。可及的に開胸しないことが明確の上で任意の手術手技の悪化防止に重要である。肺全摘術後の可動性が低下した患側の胸郭の展開に内胸大動脈採取用の開胸器を使用した報告がある5、本症例に使用した。開胸術の患側の胸壁のみを選択的に挙上することが可能となり、胸壁に着着した肺の剥離と十分な手術野の確保に極めて有効であると考える。また右側の心膜の牽引糸を密にかけ、胸壁に固定することで、陽圧換気下の右肺を右胸腔に収納することが可能であった。

片側の肺全摘術後の開心術に関する他の留意点として、術前の呼吸機能低下がある。開心術を行う呼吸機能の限界は、FEV1.0が800 mL以上で予測値の40%以上、pCO2が50 Torr未満、肺動脈収縮期圧が40 mmHg未満とする7。しかし、肺全摘術後の開心術の明確な適応基準はなく、通常の日常生活が可能な呼吸機能が保たれている症例では積極的に行べきとの意見もある6。手術中の管理では、体外循環中の過度の血液稀釈を抑える、残存肺への影響を最小限とする。術後は肺の圧損傷、肺炎および無気肺などの人工呼吸器に関連した合併症を防止するため、早期抜管と肺理療法が重要である8。

おわりに

左肺全摘術後に高度の縦隔偏位をきたした64歳の女性に対して胸骨正中切開下的MVRとTAPを経験した。アプローチや術野展開に工夫を施すことで高度の解剖学的異常を伴った症例であったが良好な結果を得た。
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5) 新井達太: 僧帽弁閉鎖不全症. 心疾患の診断と手術. 第5版. 東京; 南江堂, 1999: 140-160
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Mitral Valve Replacement after Previous Left Pneumonectomy Complicated with Marked Mediastinal Shift

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ABSTRACT

We successfully performed mitral valve replacement and tricuspid annuloplasty in a 64-year-old woman who had undergone left pneumonectomy for tuberculosis 34 years previously. Chest computed tomography revealed complete displacement of heart into the left thoracic cavity. She underwent mitral and tricuspid valve surgery via median sternotomy. In order to obtain a good operative view, the retractor for internal thoracic artery harvesting and pericardial traction sutures were employed. She tolerated the operation with these procedures and postoperative course was uneventful. When open-heart surgery is necessary in patients who have undergone pneumonectomy, care should be taken for limited pulmonary function and marked shift of mediastinal structures.

Key words: left pneumonectomy, mitral valve replacement
Delusional Denial of Heart and Lungs Despite Physical Symptoms of these Organs Resulting from a Severe Physical Disease in a Patient with Cotard’s Syndrome

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Abstract

Cotard’s syndrome, first described by Jules Cotard in 1880, is characterized by severe depressive symptoms and various delusions of negation, such as denial of internal organs and denial of existence. Here we report a case of Cotard’s syndrome observed in a schizophrenic patient with chronic thromboembolic pulmonary hypertension (CTEPH). Most notably, he showed delusional denial of heart and lungs despite physical signs and symptoms of these organs resulting from CTEPH.

Key words: Cotard’s syndrome, CTEPH, delusion of negation, heart, lung

Introduction

Cotard’s syndrome, first described by Jules Cotard in 1880, is characterized by severe depressive symptoms and various delusions of negation, such as denial of internal organs and denial of existence1). Here we report a case of Cotard’s syndrome observed in a schizophrenic patient with chronic thromboembolic pulmonary hypertension (CTEPH). Most notably, he showed delusional denial of heart and lungs despite physical signs and symptoms of these organs resulting from CTEPH. Informed consent to report his clinical course was obtained from the patient and his wife.

Case Report

The patient was a 62-year-old married man suffering from schizophrenia. According to his wife, his premorbid personality was nervous, serious, and meticulous. At the age of 43, he developed auditory hallucinations and persecutory delusions, and was diagnosed with schizophrenia. Since then, he received psychiatric treatment at a mental hospital including six admissions. At the age of 60, he developed chronic thromboembolic pulmonary hypertension (CTEPH), and started to receive medical treatment. His physical condition deteriorated, and he was admitted to the internal medicine ward of our hospital. He showed symptoms of heart and lung problems, such as palpitations, respiratory distress, atrial flutter on electrocardiogram, and cardiomegaly on chest X-ray (cardiothoracic ratio: 59%). Five days later, he showed marked deterioration in psychiatric symptoms as described below and was transferred to our ward after another five days.

On admission to our ward, he had depressive symptoms such as depressed mood, diminished pleasure, decrease in appetite, insomnia, loss of energy, feelings of worthlessness and guilt, suicidal ideation, and depersonalization. He insisted “Write my death certificate, since I am already dead”, “I have no soul or body”, “I feel palpitations, but my heart is gone”, and “I have difficulty in breathing, but I have no lungs”. He also denied the existence of brain, stomach, intestines and bladder. But, he had no other delusions or hallucinations. We decide to increase the dose of quetiapine, which had been started the previous January, from 300 mg/day to 450 mg/day, in light of its effectiveness for depressive symptoms in
schizophrenia. After increasing the quetiapine, the complaints that he was dead and had no heart or lungs gradually improved in parallel with the depressive symptoms, and disappeared by the 30th day. On the 45th day, he was discharged from our ward with palpitations and respiratory distress remaining. No relapse of delusions of negation or depressive symptoms was observed during the 6-month follow-up period.

Discussion

It is notable that the present case on one hand complained of palpitations and respiratory distress, and on the other hand denied the existence of heart and lungs, from which these symptoms originate. To our knowledge, there has been no previous report on the concurrence of physical symptom(s) of organ(s) and denial of that organ(s). As quoted by Debruyne et al., in the late 19th century Seglas cited the depersonalization phenomenon as an essential step in the development of Cotard’s syndrome. More recently, Wright et al. suggested that an important factor in the evolution of Cotard’s delusion is the delusional interpretation of feelings of depersonalization and derealization. In a previous report, we also stressed the importance of depersonalization and its interpretation in a depressive state in the development of delusion of negation. Furthermore, McKay and Cipolotti suggested an association of Cotard’s delusion with an internalizing attributional style. The present case had both depersonalization and severe depressive symptoms, and his premorbid personality did not contradict the internalizing attributional style. The combination of these predisposing factors might lead to delusional denial of heart and lungs despite physical symptoms arising from these organs. Also, dysfunction of the temporal-parietal-occipital junction may be involved, since the association between depersonalization and this brain region has been reported.

Disclosure of interests

All authors declare that they have no conflicts of interest.

References

山形大学紀要（医学）投稿規則

1. 名称
本誌の名称は、「山形大学紀要（医学）（Bulletin of Yamagata University (Medical Science)）」（ISSN: 0288-030X）とし、文献引用に際しては、「通称「山形医学（Yamagata Medical Journal;略称 Yamagata Med.）」を用いてもよい。

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本誌は医学薬学の進歩発展に貢献する論文で他誌に発表されていない原著・総説・症例報告・CPC・学会抄録・医学部における学術講演会の要旨等を掲載し、年2回の発刊とし、各々の原稿の締切日は3月1日及び9月1日とする。

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本誌への投稿の際には次のものを添えて委員長宛に提出する。
（1）手紙
（2）表紙
（3）抄録
（4）本文
（5）文献
（6）表・図版及びその説明
（7）邦文論文にあっては欧文抄録

表紙を1頁、表・図版およびその説明を最後として1頁を加える。手紙は1通、他は正1部、副（コピー）2部を提出する。原稿にはA4判用紙を用い、原則としてワードプロセッサを使用する。

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邦文においては800字以内、欧文においては200字以内とし、構成は、背景、方法、結果、結論とする。Keywordsを5つ以内に記載する。

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例①雑誌
1. 村岡世、野呂田佳郎、遠藤数夫：メトキサミンの強心作用とP1代謝促進効果、心臓 1994; 26:Suppl.4: 24-28
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各々の原稿の提出日の1か月前（2月1日及び8月1日）までに投稿申込書を提出してください。

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総集後記

2013年の第1号を発刊する。山形大学医学部の改革により、これまで接する機会の少ない論文も投稿されるようになった。本号に掲載された、総合医学教育センター西村教授からの論文はその典型であろう。速やかな審査を目指して学内の教官に審査を依頼したが、選択のない分野の論文に絞られた選択者の困惑が目立つ。背景、方法、結果、考察という構造で内容が構成されている場合には、専門外部の内容であっても、評価は可能であろう。勿論、専門家のように細やかな評価は出来ないかもしれないが、医学者として研鑽を積んで来られた先生方の素晴らしい人としてのセンスを頼りに、一層のご協力をお願いする次第である。

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医療紛争解決における日本の新しいコミュニケーションモデル
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