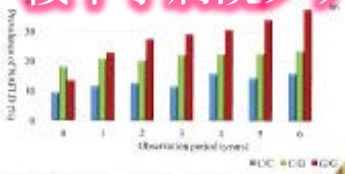


# 熊本の鬼木先生が「第29回日本臨床精神神経薬理学会」桜十字病院クチタバチームによる研究データを発表。



熊本大学大学院生命科学研究部薬物治療学分野  
鬼木 健太郎 助教  
Kentaro Oniki

## 【ポリファーマシー関連】

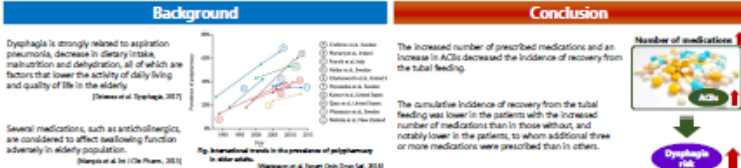
経管栄養の患者で薬剤数と抗コリン薬スコアが増えれば経口回復率が有意に低いという内容です。

6分発表、2分質疑というスタイルでしたが、けっこう色々な人に興味を持ってもらえたと思っています。質疑では、患者背景の部分に質問があつた印象で、座長を含め、皆面白いと言っておりました。データを使用させていただきありがとうございます。取り急ぎご報告申し上げます。  
鬼木健太郎

## The associations of the number of medications and the use of anticholinergics with recovery from the tubal feeding: a longitudinal hospital-based study

Kentaro Oniki<sup>1)</sup>, Keiji Takata<sup>2)</sup>, Yuki Tateyama<sup>3)</sup>, Hiroki Yasuda<sup>4)</sup>, Miu Yokota<sup>5)</sup>, Sae Yamauchi<sup>3)</sup>, Junji Saruwatari<sup>1)</sup>

1) Division of Pharmacology and Therapeutics, Kumamoto University, 2) Division of Pharmacy, Sakurayuji Hospital, 3) Division of Nursing, Sakurayuji Hospital, 4) Division of Respiratory Medicine, Sakurayuji Hospital, 5) Division of Nutrition, Sakurayuji Hospital



**We investigated the impact of the number of medications and the use of anticholinergics on the recovery from the tubal feeding in the elderly hospitalized patients.** **The increased exposure to medications, especially anticholinergics, may be an important factor interfering with recovery from the tubal feeding in the hospitalized elderly patients.**

| Subjects and Methods                          |  |                |                    |                |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
|---|--|----------------|--------------------|----------------|--------------------|---------|-------------------|-------|-------|-------|------|----------|-------------|------------|-------------|------|---------------------------------------|-------------|-------------|-------------|------|---|-------------|-------------|-------------|------|---|-------|------|-------|------|-------------------------|------------|------------|------------|------|---------------|------------|------------|------------|------|---------------------|------------|----------|------------|------|----------------|------------|------------|------------|------|--|------|---------|--------|--|--|-----|--------|--------|--|--|------|------------|------------|------------|------|--|-------|----------|-----------|----------|--|--|-----|----------|----------|----------|--|
| <b>Study design</b>                           | Retrospective observational study  |                |                    |                |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| <b>Subjects</b>                               | New hospitalized patients who received nutrition through a feeding tube at the Sakurayuji Hospital (N=98)  |                |                    |                |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| <b>Follow-up period</b>                       | One year   |                |                    |                |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| <b>Primary endpoint</b>                       | Recovery from tubal to oral feeding  |                |                    |                |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| <b>Statistical analysis</b>                   | Logistic regression analysis<br>Kaplan-Meier method<br>Cox proportional hazard model   |                |                    |                |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| <b>Characteristics of the subjects</b>        | <table border="1"> <thead> <tr> <th></th> <th>All subjects</th> <th>Recovery group</th> <th>Non-recovery group</th> <th>P value</th> </tr> </thead> <tbody> <tr> <td>Sex (male/female)</td> <td>54/50</td> <td>33/24</td> <td>21/26</td> <td>1.00</td> </tr> <tr> <td>Age (yr)</td> <td>82.2 ± 12.8</td> <td>79.3 ± 9.7</td> <td>85.2 ± 15.3</td> <td>0.02</td> </tr> <tr> <td>Number of prescribed oral medications</td> <td>5.78 ± 5.28</td> <td>5.88 ± 5.23</td> <td>5.68 ± 5.51</td> <td>0.52</td> </tr> <tr> <td>Anticholinergic Cognitive Burden score (ACBS)</td> <td>1.08 ± 1.12</td> <td>1.08 ± 1.48</td> <td>1.10 ± 1.23</td> <td>0.87</td> </tr> <tr> <td>Tube withdrawal (recovery/non-recovery)</td> <td>65/33</td> <td>32/3</td> <td>33/30</td> <td>0.22</td> </tr> <tr> <td>Comorbidities (disease)</td> <td>71 (74.5%)</td> <td>29 (74.8%)</td> <td>42 (77.3%)</td> <td>0.68</td> </tr> <tr> <td>Weak syndrome</td> <td>40 (46.8%)</td> <td>18 (55.2%)</td> <td>22 (79.3%)</td> <td>0.04</td> </tr> <tr> <td>Parkinson's disease</td> <td>22 (25.7%)</td> <td>2 (6.2%)</td> <td>20 (63.3%)</td> <td>0.01</td> </tr> <tr> <td>Bed rest index</td> <td>85 (96.9%)</td> <td>19 (58.4%)</td> <td>66 (98.4%)</td> <td>0.14</td> </tr> <tr> <td></td> <td>0-20</td> <td>22 (40)</td> <td>0 (0%)</td> <td></td> </tr> <tr> <td></td> <td>&gt;20</td> <td>2 (3%)</td> <td>0 (0%)</td> <td></td> </tr> <tr> <td></td> <td>0-10</td> <td>87 (98.8%)</td> <td>29 (74.8%)</td> <td>98 (99.3%)</td> <td>0.02</td> </tr> <tr> <td></td> <td>11-20</td> <td>7 (7.9%)</td> <td>4 (12.4%)</td> <td>3 (9.4%)</td> <td></td> </tr> <tr> <td></td> <td>&gt;20</td> <td>1 (1.1%)</td> <td>2 (6.2%)</td> <td>1 (3.0%)</td> <td></td> </tr> </tbody> </table> |                | All subjects       | Recovery group | Non-recovery group | P value | Sex (male/female) | 54/50 | 33/24 | 21/26 | 1.00 | Age (yr) | 82.2 ± 12.8 | 79.3 ± 9.7 | 85.2 ± 15.3 | 0.02 | Number of prescribed oral medications | 5.78 ± 5.28 | 5.88 ± 5.23 | 5.68 ± 5.51 | 0.52 | Anticholinergic Cognitive Burden score (ACBS) | 1.08 ± 1.12 | 1.08 ± 1.48 | 1.10 ± 1.23 | 0.87 | Tube withdrawal (recovery/non-recovery) | 65/33 | 32/3 | 33/30 | 0.22 | Comorbidities (disease) | 71 (74.5%) | 29 (74.8%) | 42 (77.3%) | 0.68 | Weak syndrome | 40 (46.8%) | 18 (55.2%) | 22 (79.3%) | 0.04 | Parkinson's disease | 22 (25.7%) | 2 (6.2%) | 20 (63.3%) | 0.01 | Bed rest index | 85 (96.9%) | 19 (58.4%) | 66 (98.4%) | 0.14 |  | 0-20 | 22 (40) | 0 (0%) |  |  | >20 | 2 (3%) | 0 (0%) |  |  | 0-10 | 87 (98.8%) | 29 (74.8%) | 98 (99.3%) | 0.02 |  | 11-20 | 7 (7.9%) | 4 (12.4%) | 3 (9.4%) |  |  | >20 | 1 (1.1%) | 2 (6.2%) | 1 (3.0%) |  |
|   | All subjects   | Recovery group | Non-recovery group | P value        |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Sex (male/female)                             | 54/50  | 33/24          | 21/26              | 1.00           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Age (yr)                                      | 82.2 ± 12.8  | 79.3 ± 9.7     | 85.2 ± 15.3        | 0.02           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Number of prescribed oral medications         | 5.78 ± 5.28  | 5.88 ± 5.23    | 5.68 ± 5.51        | 0.52           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Anticholinergic Cognitive Burden score (ACBS) | 1.08 ± 1.12  | 1.08 ± 1.48    | 1.10 ± 1.23        | 0.87           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Tube withdrawal (recovery/non-recovery)       | 65/33  | 32/3           | 33/30              | 0.22           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Comorbidities (disease)                       | 71 (74.5%)   | 29 (74.8%)     | 42 (77.3%)         | 0.68           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Weak syndrome                                 | 40 (46.8%)   | 18 (55.2%)     | 22 (79.3%)         | 0.04           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Parkinson's disease                           | 22 (25.7%)   | 2 (6.2%)       | 20 (63.3%)         | 0.01           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
| Bed rest index                                | 85 (96.9%)   | 19 (58.4%)     | 66 (98.4%)         | 0.14           |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
|   | 0-20   | 22 (40)        | 0 (0%)             |                |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
|   | >20  | 2 (3%)         | 0 (0%)             |                |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
|   | 0-10   | 87 (98.8%)     | 29 (74.8%)         | 98 (99.3%)     | 0.02               |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
|   | 11-20  | 7 (7.9%)       | 4 (12.4%)          | 3 (9.4%)       |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |
|   | >20  | 1 (1.1%)       | 2 (6.2%)           | 1 (3.0%)       |                    |         |                   |       |       |       |      |          |             |            |             |      |                                       |             |             |             |      |   |             |             |             |      |   |       |      |       |      |                         |            |            |            |      |               |            |            |            |      |                     |            |          |            |      |                |            |            |            |      |  |      |         |        |  |  |     |        |        |  |  |      |            |            |            |      |  |       |          |           |          |  |  |     |          |          |          |  |

