

Writing Group Disclosures, *Continued*

Writing Group Member	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Expert Witness	Ownership Interest	Consultant/Advisory Board	Other
Gene Y. Sung	University of Southern California Medical School	PDL Biopharma*; The Medicines Company*	None	Boehringer—Ingelheim*; EKR Therapeutics*; Bristol Myers-Sanofi Partnership*	None	None	The Medicines Company*; Genentech*; Medtronic*	None
Linda S. Williams	Veterans Health Administration, Indiana University	None	None	None	None	None	None	None
Richard Zorowitz	Johns Hopkins Bayview Medical Center	Axiom Worldwide*	None	None	None	None	Allergan, Inc; Intellect Medical*; NDI Medical*	None

This table represents the relationships of writing group members that may be perceived as actual or reasonably perceived conflicts of interest as reported on the Disclosure Questionnaire, which all members of the writing group are required to complete and submit. A relationship is considered to be "significant" if (a) the person receives \$10 000 or more during any 12-month period, or 5% or more of the person's gross income; or (b) the person owns 5% or more of the voting stock or share of the entity, or owns \$10 000 or more of the fair market value of the entity. A relationship is considered to be "modest" if it is less than "significant" under the preceding definition.

\*Modest.

†Significant.

## Reviewer Disclosures

Reviewer	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Expert Witness	Ownership Interest	Consultant/Advisory Board	Other
E. Sander Connolly	Columbia University	None	None	None	None	None	None	None
Brett Cucchiara	University of Pennsylvania	None	None	None	None	None	None	None
Steven R. Levine	Mount Sinai School of Medicine	None	None	None	None	None	None	None
Stephan Mayer	Columbia University	None	None	None	None	None	None	None
Barney Stern	University of Maryland	None	None	None	None	None	None	None

This table represents the relationships of reviewers that may be perceived as actual or reasonably perceived conflicts of interest as reported on the Disclosure Questionnaire, which all reviewers are required to complete and submit. A relationship is considered to be "significant" if (a) the person receives \$10 000 or more during any 12-month period, or 5% or more of the person's gross income; or (b) the person owns 5% or more of the voting stock or share of the entity, or owns \$10 000 or more of the fair market value of the entity. A relationship is considered to be "modest" if it is less than "significant" under the preceding definition.

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## 疲弊度調査の結果

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## 脳卒中診療医の疲弊度全国調査による燃え尽き症候群

- 燃え尽き症候群は、Maslach の定義によれば、極度の疲労 (Exhaustion) 感情の枯渇、シニスム、離人症的症状 (Cynicism, Depersonalization) を特徴とする病態である
- 対人サービスでおこりやすいことが知られている。(J Occup Behav 1981; 2: 99-113)
- 近年、医師の燃え尽き症候群がアメリカ人研修医の集団などで多く報告されている
- アメリカ外科学会: 会員の40% はburnout, 30%がうつ病のスクリーニング陽性, 28%がlow mental QOLを示している(Ann Surg. 2009;250:463-471.)
- 医師の燃え尽き症候群、ストレスは医療過酷との関連も指摘されている (JAMA. 2009;302(12):1294-1300, Ann Surg. 2010 Jun;251(6):995-1000.)
- 日本人医師における燃え尽き症候群に関して、大規模調査は行われていない。
- 本研究では、脳卒中診療に携わる専門医資格を持つ医師を対象として、職場環境と燃え尽き症候群、QOL、うつ症状の関連を検討した。

## 対象と方法

- 厚生労働科学研究飯原班(包括的脳卒中センターの整備に向けた脳卒中の救急医療に関する研究-J-ASPECT研究)の一環として行った。
- 対象は日本脳神経外科学会、日本神経学会の認定専門医を対象に無記名、横断的アンケート調査を2011年3月に行った。(配布総数10,741人)
- 今回は震災の影響を考慮して東北3県居住医師は対象から除いた。
- 年齢、性別、経験年数、診療内容、労働時間、受け持ち患者数、当直回数、オンコール回数、収入、専門医種別、などを診療従事者側の背景要因として調査した。
- 仕事に対する満足度、燃え尽き症候群の程度、QOLの測定を行った。燃え尽き症候群はMaslach Burnout Inventory の日本語版(北岡らによる)日本語MBI-GSを用いた。16問の質問により疲労感、シニスム、職場効力感を測定した。
- QOLの測定にはSF-36中のメンタルヘルススコア(MH5)を尺度として用いた。
- 疲弊感スコア3.4以上シニシズムスコア2.6以上または職場効力感スコア1.7を満たす場合を燃え尽き症候群として、Wilcoxon Ranksum test, Logistic regressionにより関連するリスクファクターの検索を行った。多変量モデルではステップワイズ法による変数選択を行った。

## 結果

Variable	Burnout		P-value
	Score > 3.4	Score > 2.6	
Male	88.7	91.3	0.009
Number of the staff (Night Shift)	3.2	2.8	<0.0001
Number of out-patient cases	1.4	1.7	<0.0001
Working hours/week	65.9	64.1	<0.0001
Number of on-call (h)	11.0	10.0	0.004
Stroke Care Cases	74.0	70.0	0.007
Number of stroke cases/year	8.0	8.0	0.0001
Number of stroke cases/year	2.0	1.0	0.0001
Stroke Care Cases	107.0%	100.0%	<0.0001
Stroke	70.0%	60.0%	0.0001

- 対象となる脳神経外科医、神経内科医のうち2724(25.3%)の解答を得た。疲弊度に関しての有効回答率は90.1%であった。
- 解答者は平均経験年数で21.9年、週65.9時間労働、月2.95回の当直と週2.02回のオンコール勤務を行っていた(Table 1)
- 疲弊感またシニシズムのどちらかを満たすことを基準とした場合、48.1%の解答者が燃え尽き症候群の可能性があった

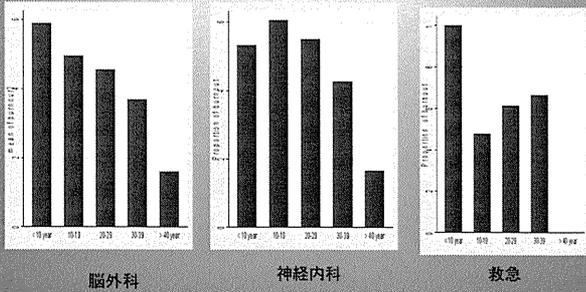
## 結果

- 疲弊感スコア3.4以上かつシニシズムスコア2.6以上または職場効力感スコア1.7を満たす場合と定義した場合でも23.4%がバーンアウトと診断された。
- 睡眠時間、収入によるバーンアウトの割合は大きく異なることが示された。
- SF-36のメンタルスコアを用いた場合、58%が軽度のうつ症状を示し、27.1%は重度のうつ症状を示した

## 結果

- 経験年数とともに燃え尽き症候群は減少した。(p for trend <0.01) 特に経験10年未満では59.0%が燃え尽きていた。
- 経験年数は労働時間の減少、睡眠時間の増加と有意に相関していた。(both P <0.001)

## 結果



標準科による層別解析を行っても同様の傾向を示した  
(救急に関してはN=47のため参考)

Table2. Risk factors of developing burnout

変数	OR	P-value	95% CI
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03

- 単変量回帰で燃え尽き症候群の増加と有意に相関したのは、  
労働時間、時間外コール数  
睡眠時間6時間以下  
t-PA 治療数  
当直日数  
経験年数10年以下  
患者数  
脳卒中治療に携わる時間が2596  
以上であること

Table3. Final models for predicting burnout

変数	OR	P-value	95% CI
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03
Number of patients	1.02	<0.001	1.02-1.03

- 燃え尽き症候群の低下と有意に相関したのは、  
既婚、収入
- ステップワイズ法では、睡眠時間、労働時間、当直数、高収入が予測因子として選択された

## 結果

脳外科医

	Odds Ratio	P-value	95% CI	
緊急手術	1.13	0.023	1.01	1.27
脳腫瘍	1.03	0.472	0.98	1.10
脳卒中手術	1.04	0.344	0.98	1.12
TPA件数	1.24	<0.001	1.11	1.38

施設要因

	Odds Ratio	P-value	95% CI	
総病床数	1.17	0.008	1.05	1.30
血腫手術	1.04	0.003	1.01	1.07
脳腫瘍	1.03	0.057	1.00	1.06
BCUを備える	1.11	0.351	0.89	1.40
救急指定	1.70	0.051	1.05	2.78

脳外科医に関しては、緊急手術、TPA件数が有意なリスク要因であった。  
施設調査による施設側の要因のpreliminaryな解析では、総病床数、血腫手術、救急指定などの関連が示唆された

## 結論

- 燃え尽き症候群、うつ症状及びQOL低下は脳卒中診療に携わる医師でしばしば認められた。
- 睡眠時間の増加、収入の増加が燃え尽き症候群の予防に有効であることが示唆された。しかし収入については経験年数の増加に伴う職位の上昇と労働時間の減少と相関している可能性がある。
- t-PAの件数は緊急度の高い処置であり、疲労につながっている可能性がある。
- 脳卒中中の診療時間が長いことが燃え尽き症候群リスクとなっており、今後当直回数の減少、一人当たり受け持ち患者数の減少などを通じた脳卒中診療医の負担の軽減が必要と思われる。
- 今後1施設あたりの疲労させない人員配置の調達の検討が必要
- 今後は地域性、地理的条件(過疎地域)、所属施設の性格(特定機能病院等)、包括的脳卒中センターの要件などの要因による詳細な検討が必要である。

診断群分類包括評価情報における  
コイル径を用いた  
破裂脳動脈瘤の疫学調査

松重俊憲 飯原弘二

国立循環器病研究センター 脳神経外科

本邦におけるくも膜下出血/ 脳動脈瘤の疫学調査

- Subarachnoid hemorrhage
  - Female prevalence
  - Mean age: 62 years-old
  - Incidence: 18.3~20.9 /100,000 persons
- Unruptured aneurysm
  - annual rupture rate: 0.8~2.7%

- 亜熱帯地域(奄美大島)におけるくも膜下出血の疫学的検討  
中山正基他 鹿児島大学医学雑誌 45: 179-186, 1993
- Study of aneurysmal subarachnoid hemorrhage in Izumo City, Japan  
Inagawa T. et al. Stroke 26: 761-766, 1995
- Stroke incidence and case fatality in Shiga, Japan 1989-1993  
Kita Y. et al. Int J Epidemiol 28: 1059-1065, 1999
- Risk of rupture associated with intra cerebral aneurysm in Japanese population: a systemic review of the literature from Japan  
Monta A. et al. J Neurosurg 102: 601-606, 2005
- UCAS (Unruptured cerebral aneurysm study) Japan
- SUAVe (Small Unruptured Aneurysm Verification) Study

未破裂脳動脈瘤の自然歴

- ISUIA (International study of unruptured intracranial aneurysms)

( 5-years rupture rate)	Ant. Circulation	Post. circulation
< 7mm aneurysm w/o SAH	0%	2.5%
7mm~12mm	2.6%	14.5%
13mm~24mm	40%	50.0%

Wieber DO et al. Lancet 362, 2003

◆

142 unruptured aneurysm with long follow up (mean 19.7 years)

Annual rupture rate 1.3%

70% of ruptured aneurysm: <6mm

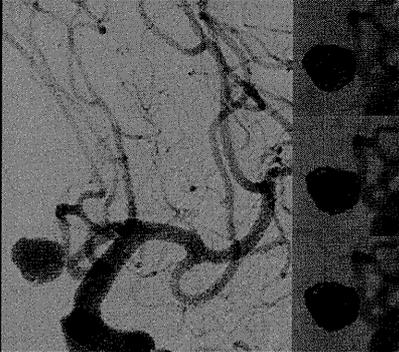
Juvela S. et al. J Neurosurg, 108: 1052-1060, 2008

本邦におけるくも膜下出血、破裂脳動脈瘤の  
実態を把握することは極めて重要

全国の基幹病院より収集可能な電子レセプト  
情報を用いて分析ができないか？

治療手段の一つであるコイル塞栓術に用いる  
医療材料情報を用いることができないか？

Concept of coil embolization



Framing

Filling

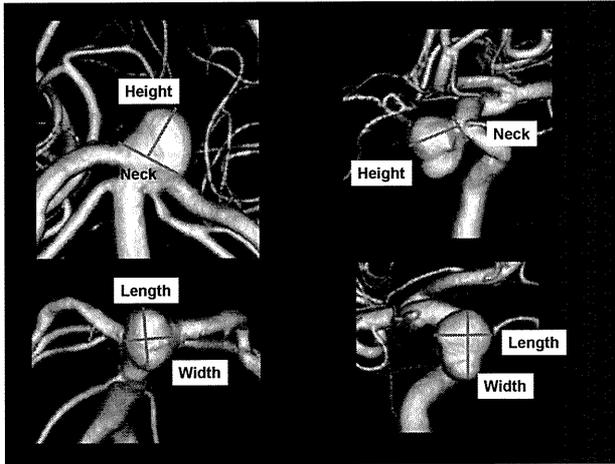
Finishing

Framing coil

- 動脈瘤サイズに合わせ、挿入できる最も長いコイルを選択
- 偏り無くネックおよびドームをカバーしたフレームを作ることが理想
- 破裂脳動脈瘤では計測値よりもやや小さなコイル径を最初に選択する方が無難

中澤和智, 村尾健一. 脳神経外科連報 2008



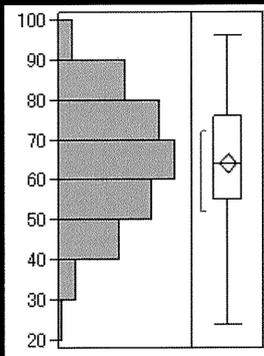


### NCVCIにおけるくも膜下出血症例

unknown SAH	10
Without aneurysm	
Arteriovenous malformation	2
Amyloid angiopathy	2
dissecting AN	8
Poor grade SAH	20
Clipping	117
Coil embo.	46
Total	206

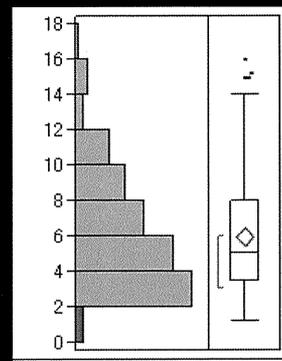
2009.1.1~2011.12.31(3years)

### 外科的治療施行症例における患者背景



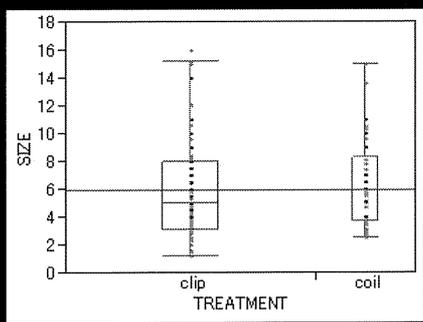
患者総数 163例  
 女性 100例  
 平均 64.5歳  
 標準偏差 14.6歳

### 当施設における外科的治療施行例の破裂動脈瘤サイズ



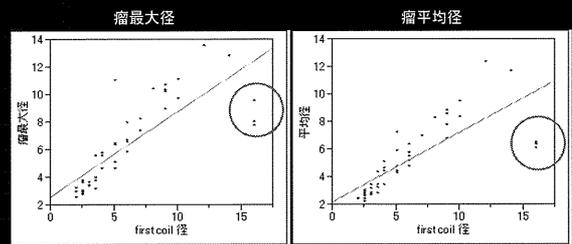
平均 6.0mm  
 標準偏差 3.2mm

### Clipping/Coil embo.における動脈瘤サイズ



クリッピング術とコイル塞栓術で有意差を認めない

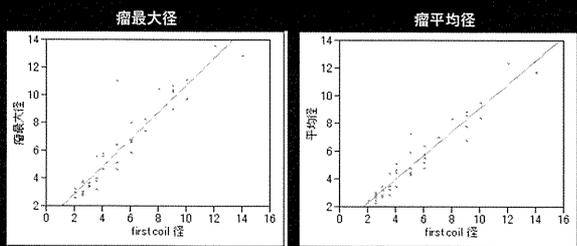
### 脳動脈瘤コイル塞栓術における脳動脈瘤サイズとfirst coil径の関係



最大径 =  $2.6743616 + 0.6162791 * \text{first coil 径}$  平均径 =  $2.2718283 + 0.5016089 * \text{first coil 径}$   
 R2乗=0.628164 R2乗=0.597484

First コイル径と脳動脈瘤最大径、平均径ともに相関がある

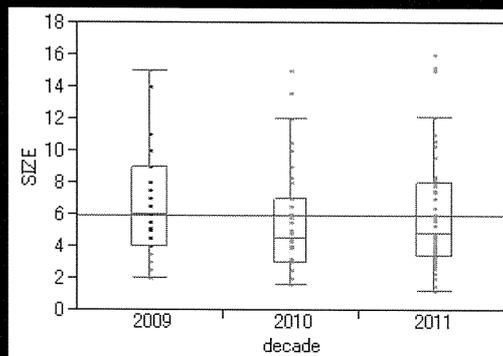
### 脳動脈瘤コイル塞栓術における 脳動脈瘤サイズとfirst coil径の関係



最大径 =  $1.0374022 + 0.9804915 * \text{first coil 径}$  R2乗=0.870572  
 平均径 =  $0.6815014 + 0.8554517 * \text{first coil 径}$  R2乗=0.926075

ED∞ (Helical coil)を除くと、さらに高い相関性がある

### 外科的治療施行例における 治療年代別の破裂脳動脈瘤最大径の推移



### 脳動脈瘤コイル塞栓術におけるFraming coil loss

45例中 8例

○術者経験別  
 指導医 5例  
 専門医 3例  
 非専門医 0例

○変更したコイルとのサイズギャップ  
 Case 7 0.5mm  
 Case 30 0.5mm  
 Case 40 1.0mm

※他5例は同サイズでのコイル種類の変更

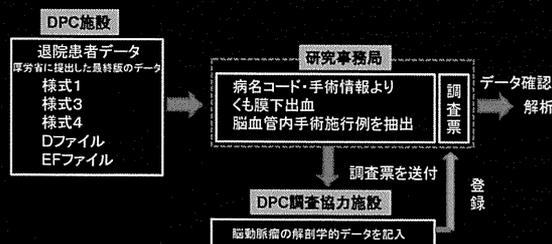
### 展望

- 2003年より、診断群分類包括評価(Diagnosis Procedure Combination: DPC)が導入され、現在では約1300施設が利用するに至っている
- この中の「E・Fファイル」は診療行為明細であり、個々の患者に入院中に使用された薬剤や特定保険医療材料の種類・量・日付がすべて記載されている。
- この医療情報を用い、破裂脳動脈瘤コイル塞栓術の医療材料であるコイル径を調査することで、DPC参加施設のくも膜下出血発症時の年齢、性別、地域性などの実態調査に加え、破裂脳動脈瘤の大きさを調査できる

### 展望

- 脳神経外科全数調査(破裂+未破裂)  
 開頭クリッピング術: 24,513  
 コイル塞栓術: 8,380
- J-ASPECT (破裂+未破裂)  
 開頭クリッピング術: 15,728 (64.2%)  
 コイル塞栓術: 5,623 (67.1%)
- 破裂脳動脈瘤  
 開頭クリッピング術: 10,266  
 コイル塞栓術: 4,246

### 調査の流れ



# 北海道における脳卒中急性期医療実態調査の概要と対策

中村記念病院 脳神経外科 脳卒中センター  
中川原 謙二

平成24年3月2日 平成23年度第2回班会議 横浜

## I 調査目的

北海道医療計画に定めた脳卒中と急性心筋梗塞の発症予防から応急手当・病院前救護、急性期医療の医療機能について、各機関の取り組みの実態を把握し、医療機能の検証や推進方策について検討を行い医療連携体制の充実を図ることを目的とする。

## II 調査方法

### 1 調査対象医療機関

北海道医療計画において公表された脳卒中又は急性心筋梗塞の急性期医療を担う医療機関を対象とする。

ただし、北海道医療計画において、公表該当医療機関がない二次圏域においては、地域センター病院を対象とする。

### 2 調査期間

平成21年度・22年度の夏期・冬期に実施。

対象疾患	期	平成21年度		平成22年度	
		夏期	冬期	夏期	冬期
脳卒中	夏期 14日集	平成21年7月5日(日)～ 平成21年7月18日(土)	平成22年7月4日(日)～ 平成22年7月17日(土)	平成21年7月5日(日)～ 平成21年7月18日(土)	平成22年7月4日(日)～ 平成22年7月17日(土)
	冬期 14日集	平成22年1月17日(日)～ 平成22年1月30日(土)	平成23年1月16日(日)～ 平成23年1月29日(土)	平成21年7月5日(日)～ 平成21年8月1日(土)	平成22年7月4日(日)～ 平成22年7月31日(土)
急性心筋梗塞	夏期 28日集	平成21年7月5日(日)～ 平成21年8月1日(土)	平成22年7月4日(日)～ 平成22年7月31日(土)	平成21年7月5日(日)～ 平成21年8月1日(土)	平成22年7月4日(日)～ 平成22年7月31日(土)
	冬期 28日集	平成22年1月17日(日)～ 平成22年2月13日(土)	平成23年1月16日(日)～ 平成23年2月12日(土)	平成21年7月5日(日)～ 平成21年8月1日(土)	平成22年7月4日(日)～ 平成22年7月31日(土)

## III 調査対象

調査対象は、脳卒中又は急性心筋梗塞の発症後1週間以内で、調査期間中に調査対象機関を受診した全ての患者とする。

ただし、他の医療機関において発症し、調査該当医療機関を受診した場合は対象とするが、調査該当医療機関における院内発症例については、対象外とする。

## III 回収状況

### ○ 脳卒中

	合計	H21夏	H21冬	H21小計	H22夏	H22冬	H22小計
総数(人)	2,594	656	701	1,357	611	626	1,237
男性(人)	1,465	362	384	746	363	356	719
(%)	56.5%	55.2%	54.8%	55.0%	59.4%	56.9%	58.1%
女性(人)	1,129	294	317	611	248	270	518
(%)	43.5%	44.8%	45.2%	45.0%	40.6%	43.1%	41.9%

### ○ 急性心筋梗塞

	合計	H21夏	H21冬	H21小計	H22夏	H22冬	H22小計
総数(人)	728	173	210	383	155	190	345
男性(人)	629	132	150	282	118	129	247
(%)	72.7%	76.3%	71.4%	73.6%	76.1%	67.9%	71.6%
女性(人)	99	41	60	101	37	61	98
(%)	27.3%	23.7%	28.6%	26.4%	23.9%	32.1%	28.4%

## IV 調査結果

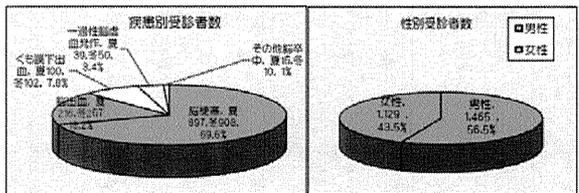
### ○ 脳卒中

#### 1 発症予防

(I) 患者属性について

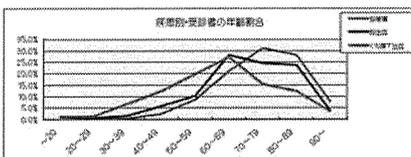
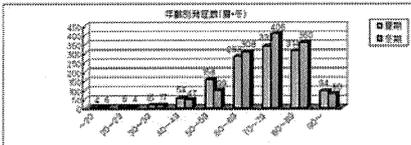
A 疾患別受診者数

・脳梗塞が全体の約70%を占めており、次いで脳出血、くも膜下出血の順に多くなっている。  
・夏期と比較し冬期では受診者数が若干増加したが、季節による疾患の割合等の差異は認められなかった。  
・男女比は男性が13%上回っていた。



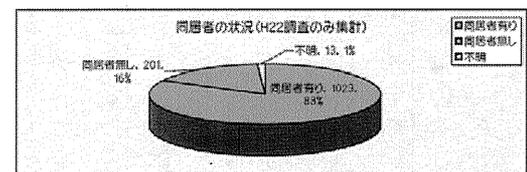
## イ 年齢別発症状況

・70歳代が745人(28.7%)、80歳代674人(26.0%)の順に多く、60歳代以上が全体の84.2%を占めている。  
・冬期と比較し夏期では、40代、50代の受診者が増加し、70代、80代の受診者が減少していた。  
・年齢層と比較し、脳出血は若年での発症となっており、逆にくも膜下出血が若年で発症していた。



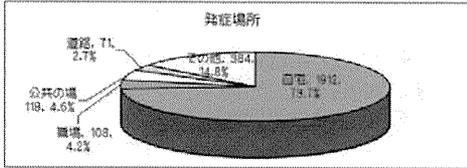
## ウ 居住形態

・同居者有りが1,023人(83.6%)、無しが201人(16.4%)、不明が19人(1.0%)であった。(H22年度調査でのみ集計)



エ 発症場所

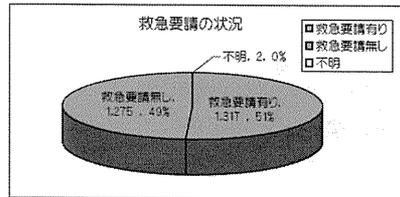
・自宅1,912人(73.7%)、その他384人(14.8%)(H22年度調査分、他の医療機関61人、介護保険関係施設84人を含む)、公共の場118人(4.6%)、職場108人(4.2%)、道路71人(2.7%)、不明1人となっている。  
 ・夏期と比較し冬期では、自宅での発症が増加し、職場、その他での発症が減少した。



2 応急手当・病院前救護

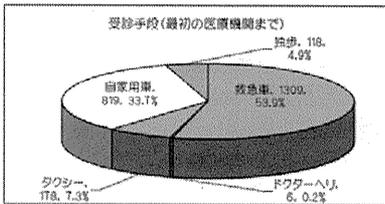
(1) 受診経過  
 ア 救急要請の状況

・救急要請有りは1,317人(50.9%)、救急要請無しは1,275人(49.2%)、不明2人(0.1%)であった。  
 ・夏期と比較し冬期では、救急要請の割合がわずかに増加した。



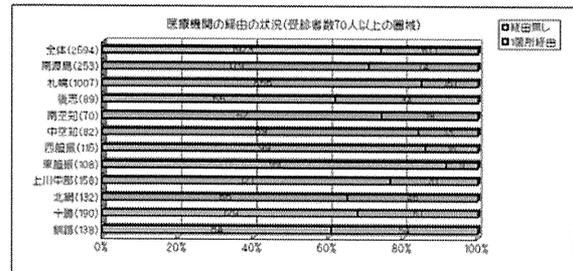
イ 受診手段の状況

・受診手段は、救急車1,309人(53.9%)、ドクターヘリ6人(0.2%)、自家用車819人(33.7%)、タクシー178人(7.3%)、徒歩118人(4.9%)となっていた。  
 ・夏期と比較し冬期では、救急車での受診が増加し、自家用車での受診が減少した。



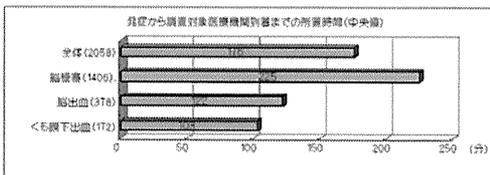
ウ 他の医療機関の経由の状況

・全道の他の医療機関の経由状況は、経由機関無しが1,923人(74.1%)、経由機関有りが671人(25.9%)で、経由機関有りのうち、2か所の機関を経由し、受診した人は20人(0.8%)であった。  
 ・圏域別に見ると、1か所の経由機関有りは、札幌151人(15.0%)、南渡島74人(29.2%)、十勝61人(32.1%)が経由した受診者が多く、経由の割合では釧路、後志が高くなっていた。



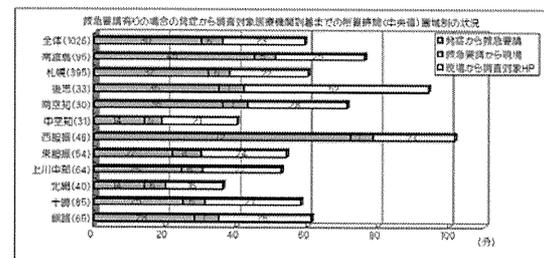
エ 疾患別発症から医療機関到着までの所要時間等

・発症から調査対象医療機関到着までの所要時間の中央値は116分であった。疾患別では、くも膜下出血103分<脳出血122分<脳梗塞225分の順に所要時間の中央値が短くなっていた。



オ 救急要請有りの場合の発症から各期までの所要時間

・救急要請があった場合の発症から医療機関到着までの所要時間は、西支庁、後志、南渡島を除き60分程度であった。  
 ・西支庁、南渡島の所要時間が60分を超過していた理由は、発症から救急要請までに時間を費やしていたことによる。  
 ・救急要請してから、調査対象医療機関到着までの所要時間は後志を除き概ね30分程度と差がなかった。

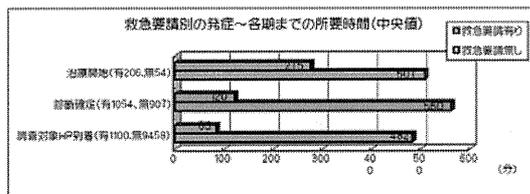


### 3 急性期医療

#### (1) 受診経過

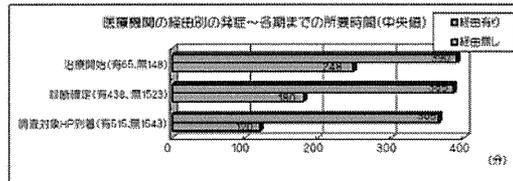
#### ア 救急要請(有・無)別の発症から医療機関到着までの所要時間

・救急要請があった場合となかった場合の発症から調査対象医療機関到着、診断確定、治療開始、までの所要時間の中央値を比較すると救急要請有りの所要時間が大幅に短く、調査対象医療機関到着までは399分、診断確定までは440分、治療開始までは232分短かった。



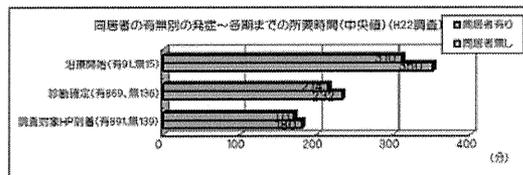
#### イ 経由医療機関(有・無)別の発症から医療機関到着までの所要時間

・医療機関の経由があった場合となかった場合の発症から調査対象医療機関到着、診断確定、治療開始、までの所要時間の中央値を比較すると医療機関の経由無しの所要時間が大幅に短く、調査対象医療機関到着までは245分、診断確定までは205分、治療開始までは142分短かった。



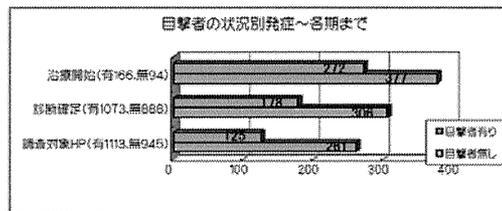
#### ウ 同居者(有・無)別の発症から医療機関到着までの所要時間(H22調査)

・同居者有りの場合と無しの場合の発症から調査対象医療機関到着、診断確定、治療開始、までの所要時間の中央値を比較すると同居者有りの所要時間が若干短く、調査対象医療機関到着までは40分、診断確定までは18分、治療開始までは40分短かった。



#### エ 目撃者(有・無)別の発症から医療機関到着までの所要時間

・目撃者有りの場合と無しの場合の発症から調査対象医療機関到着、診断確定、治療開始、までの所要時間の中央値を比較すると目撃者有りの所要時間が短く、調査対象医療機関到着までは136分、診断確定までは128分、治療開始までは105分短かった。



<連絡先>  
北海道保健福祉部健康安全局  
健康づくり課 脳卒中対策推進室  
〒060-8558 札幌市中央区北5条西5丁目  
電話011(231)4111 内線25-523

## まとめ

- ・北海道における脳卒中の急性期医療実態調査の結果、脳卒中の急性期医療では、①救急要請ありの場合、②経由医療機関なしの場合、③目撃者ありの場合において、医療機関への到着、確定診断、治療開始までの所要時間が大幅に短縮することが判明した。
- ・脳卒中急性期医療の成績を改善させるためには、脳卒中が救急疾患であることを啓発し(メディアを使ったACT-FASTの浸透など)、地域における脳卒中センターの整備に加え、脳卒中救急受け入れの可否を迅速に判断できる仕組みを構築することが重要である。

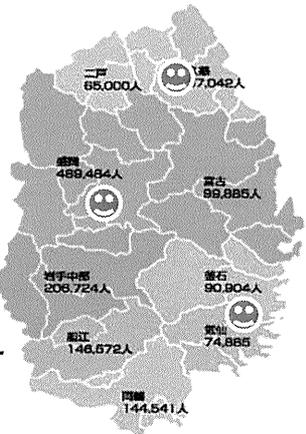
# 岩手県の脳卒中救急医療の現状と震災前後の変化

岩手医科大学 脳神経外科  
小笠原邦昭

## 岩手県

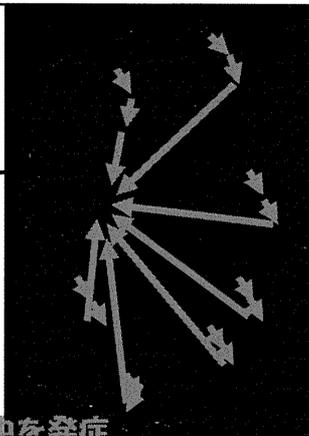
北海道について広い。  
四国4県に匹敵する広大な県土。  
9つの2次医療圏

高度救命救急センター  
県立久慈病院  
高次救命救急センター  
県立大船渡病院  
高次救命救急センター



## 岩手県の脳卒中救急診療

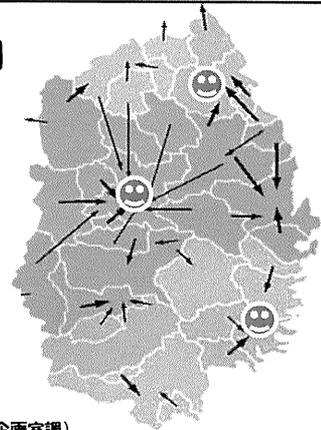
岩手医科大学  
高度救急センター  
↑  
地域の基幹病院  
↑  
地域の病院  
↑  
開業医



脳卒中を発症

## 患者受療動向

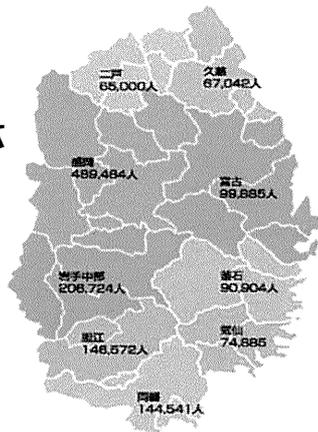
流出量  
10%以上30%未満  
30%以上50%未満  
50%以上



(出典：県保健福祉部保健福祉企画室調)

## 岩手県

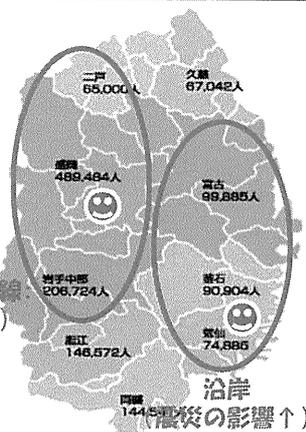
北海道について広い。  
四国4県に匹敵する広大な県土。  
9つの2次医療圏



## 岩手県

北海道について広い。  
四国4県に匹敵する広大な県土。  
9つの2次医療圏

内陸（新幹線沿線）  
震災の影響↓





## 平成23年度 北多摩南部保健医療圏 脳卒中医療連携推進事業における 取組み状況報告

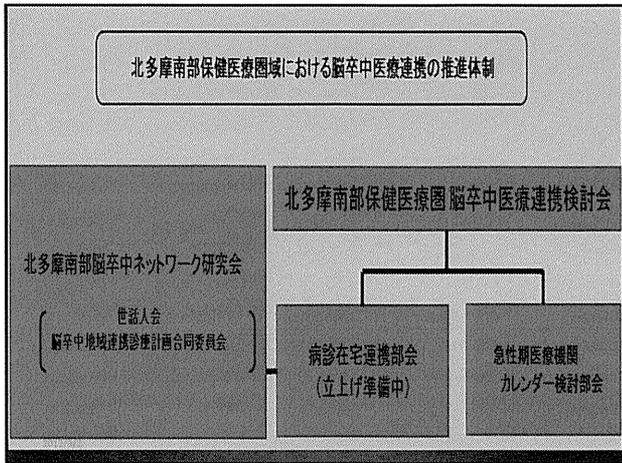
平成24年3月2日  
北多摩南部保健医療圏事務局  
武蔵野赤十字病院 富田博樹  
杏林大学脳神経外科 塩川芳昭

2012/3/2

### 北多摩南部脳卒中ネットワーク研究会 (地域連携診療計画参加病院)

● 計画管理病院: 6施設 ● 連携保険医療機関: 30施設 (平成24年1月1日現在)

2012/3/2



### 北多摩南部脳卒中ネットワーク研究会

- 第7回脳卒中地域連携診療計画合同委員会 平成24年3月2日(金)
  - ①都内脳卒中地域連携バス標準様式に関する報告
  - ②連携医療機関からの連携バス活用報告と取組み
  - ③運用マニュアル改訂について
- 地域住民への脳卒中予防に関する普及啓発活動
- 地域医療関係者への連携バス普及啓発活動
- 北多摩南部脳卒中地域連携診療計画書(連携バス) 参画への普及活動

2012/3/2

### 脳卒中地域連携バス

第1回東京都脳卒中地域連携バス合同会議 平成23年5月28日(土) 都庁

- ①東京都統一版脳卒中地域連携バス作成に向けた検討
- ②各圏域でのクリティカルパス普及への取組み発表

第2回東京都脳卒中地域連携バス合同会議 平成23年10月22日(土) 都庁

- ①東京都統一版脳卒中地域連携バス作成の進捗状況報告
- ②各圏域における連携バス運用による効果

第3回東京都脳卒中地域連携バス合同会議 平成24年1月28日(土) 都庁

- ①東京都統一版脳卒中地域連携バスの運用について
- ②各圏域における連携バス運用について発表

2012/3/2

### 計画管理病院6施設の運用状況

(平成22年7月1日～平成23年6月30日 関東圏圏厚生局提出データより抜粋)

(1) 対象期間における脳卒中疾患退院患者数(転院・在宅・死亡)

武蔵野日赤	杏林大学	多摩総合	調布	府中恵仁会	慈恵第三
591人	523人	516人		395人	112人

(2) 地域連携診療計画書(地域連携バス)適用患者数

武蔵野日赤	杏林大学	多摩総合	調布	府中恵仁会	慈恵第三
189人	110人	58人		38人	0人

(3) 自院における平均在院日数

武蔵野日赤	杏林大学	多摩総合	調布	府中恵仁会	慈恵第三
29.6日	35.8日	34.1日		39.1日	0日

(4) 最終的に在宅復帰した患者数

武蔵野日赤	杏林大学	多摩総合	調布	府中恵仁会	慈恵第三
150人	62人	40人		25人	0人



## 今後の課題

- 脳卒中地域連携パス様式の統一化(標準化)の作成完了に伴う、当圏域での方向性について
  - …新様式での運用開始に伴う関係医療機関への再周知。(運用説明、届出再申請等)
  - …在宅期(診療所等)への地域連携パスの再周知と積極的利用の啓蒙
- 脳卒中急性期診療体制のカレンダー運用廃止の影響分析

2012/3/2