

# カンボジア 工場労働者のための子宮頸がんを入口とした 女性のヘルスケア向上プロジェクト

Newsletter from SCGO-JSOG Project on Women's Health and Cervical Cancer

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## カンボジア子宮頸がん病理育成事業(国内研修)

2017年8月号(No22)のニューズレターでもお伝えしましたように、当プロジェクトは、JICA 草の根技術事業予算による3国立病院の医師の育成、工場の工員に対する女性の健康に関する健康教育、工場における子宮頸がん検診等の活動と相互補完的になるように、厚生省予算\*を活用し、カンボジアの子宮頸がん検診の今後の展開には欠かせない病理医師技師の育成を行なっています。

カンボジア人病理技師4名が10月26日から11月20日、病理医師4名が11月2日から11月20日の期間、日本で研修を受けました。

\*H29年度厚生労働省医療技術等国際展開推進事業

### カンボジア病理医師、病理技師の本邦研修について

国立国際医療センター 上田あかね

今回の研修には、首都プノンペンにある国立3病院の病理検査室と健康科学大学より病理技師と病理医師がそれぞれ2名ずつ、計8名が参加しました。病理技師は質の高い病理標本を作製するための技術習得を目的に、約3週間に渡り新渡戸短期大学、がん研有明病院、東京医科歯科大学で固定・包埋・薄切・染色の技術や病理検査室の管理などについて学びました。また日本医科大学多摩永山病院では学会発表の指導を受けました。今回のような技術指導を受ける機会はこれまでになく、とても熱心に実習に取り組んでいました。研修により彼らの作成する標本の質が向上したことは明確で、帰国後の標本の質改善や新しい技術の導入などに関して意欲的に意見を述べるようになりました。

現在カンボジアの公立病院で病理診断を行っているのは3病院のみであり、大学医学部にはまだ附属病院がありません。現役の病理医師は今回研修に参加した4名が全てとなります。2015年に開始した病理専門医コース1期生が2018年に過程を修了し、病理専門医となる予定ですが、絶対的な病理医師の数が不足しています。今回の研修では、病理システム強化のために、学会の役割やがん登録、病理専門医の育成、臨床医との協働、テレパソロジーを学ぶことを目的としました。国立国際医療研究センター、がん研有明病院、順天堂大学医学部付属練馬病院、獨協医科大学越谷病院、神戸大学医学部附属病院、兵庫県立淡路医療センター、大阪国際がんセンターの病理検査室を訪問し、日本の検体管理、環境整備、最新の機器などについて学び、臨床病理検討会、テレパロジーは実際に経験することができました。また研修を受けることで病理学会の役割や専門医教育に対する理解を深めることができました。病理医師、病理技師ともに今回の研修をきっかけに、現状を改善していくための定期会合を開くことを活動計画の一つとしました。今後のカンボジアの病理システムの強化や人材育成のために、彼らが力を合わせて活動することは非常に大切であると考えられます。

研修中、日本病理学会、日本臨床細胞学会よりご招待頂き、研修員は、第63回日本病理学会、病理第56回日本臨床細胞学会に参加しました。特に、臨床細胞学会では、「カンボジアにおける病理研修の現状」、「カンボジアの病理技師による病理と細胞診：日本でのトレーニングの結果」と題するポスター発表を行い、両発表とも優秀演題賞に選ばれました。

本研修では多くの施設で温かく迎え入れていただき、また熱心にご指導いただいたことを心より感謝を申し上げます。



(写真) 新渡戸文化短期大学での研修



(写真) 新渡戸文化短期大学での研修



(写真) 東京医科歯科大学にて



(写真) 神戸大学付属病院での研修



(写真) 順天堂大学医学部付属練馬病院にて



(写真) 臨床細胞学会にて優秀賞演題賞受賞



(写真) 福岡での第56回日本臨床細胞学会秋期大会にて



Dr. Chhut Serey Vathana, Pathologist,  
Lecturer at the University of Health Sciences in Phnom Penh, Cambodia

The program of the training is very helpful and satisfied. It included important objects. I have learned many things and visited several university hospitals focusing on pathology laboratories.

<University hospital visit and training>

- I have seen a good collaboration between pathologists and other departments (radiologists, surgeons, clinicians ...) during a clinico-pathology conference (CPC) at Juntendo university hospital. I noticed how those people interact and participate in the meeting. The meeting was not just only to solve the problems or find out the diagnosis but also a chance for the residents and young specialists to learn from the seniors.
- I have seen a strict and good curriculum for residency training, for example a minimum number of cases and autopsy for a resident to be done during their study.
- See how the residents work (at the department of pathology of Dokkyo medical university and Koshigaya hospital).
- Learn a cancer registration (99 items for a case to be selected in cancer registration) which is very important for research purpose.
- See the importance of telepathology for pathologist resident and also for resident in the remote area ( a case in Awaji Medical Center, the only one 3rd year resident in the age of 56 years old )
- Admired the hard work of every society (own classification of cancer, preparing the examination for students; have seen the example of examination).
- Have a good chance to see the real question exam for a resident to be certified as a pathologist.
- Get a good lecture from Ariake hospital (how to handle the toxic reagent: date of expiring, separate the toxic and non-toxic reagent, the bio-safety logos...)
- Learn the role of International Academic of Pathology (IAP) and Japanese IAP division.
- Learn the role of the Society of Pathology and overview of medical specialist (board certified) system.

<Laboratory tours>

- Existing to see modern equipment in pathology laboratory.
- Evaporation system to avoid the exposition of formalin, xylene; separated boxes for infected and non-infected material; macroscopic desk; camera for specimen photograph; automatic block and slide printing, automatic staining (HE, PAP ...), automatic mounting; automatic immunohistochemistry staining ...
- Every step (process) from receiving specimen to the diagnosis is very well treated for minimizing the error.
- Good work flow of pathology department (ex: rotation of lab technicians, standard operation manual or working sheet: who change the reagent and when, are also noted)
- Technical control (slides control, regular maintenance)

<Conference>

- Attend pathology conference of Japanese Society of Pathology (63<sup>rd</sup> annual autumn meeting of JSP in Tokyo) and the 56<sup>th</sup> Annual Autumn Meeting of the Japanese Society of Clinical Cytology. See the overview of the meeting and attend to several lectures (JSCC participation and presentation at the conference). We present a poster with a title "Current situation of pathology in Cambodia". We got a felicitation from the committee, as the poster is classified in the top good.

My future Commitment:

- Will organize a monthly meeting among pathologists and residents (1<sup>st</sup> meeting will be held in January 2018)
- Build up IAP Cambodian division (search the information and criteria needed...)
- Create the Cambodian society of pathology.
- Continue the resident recruitment and update the curriculum by using some points of JSP training system (example 1500 cases of cytology, 2000 cases of histology as a minimum number of cases for a resident in 3 years training)
- Adjust/apply the maximum technical skills that our technologists have learned to our department.



Dr Nheb Mary, MD  
Pathologist, Calmette hospital

I was invited to join a project organized and supported by NCGM and JSOG called "Human Resource and System Developments for Cervical Cancer Screening in Cambodia.

The aim of this project is to educate us, Cambodian pathologists, to understand the role of professional society, the important of collaboration with clinician for improving the pathological diagnosis and to experience the telepathology as a tool in the limited resource.

We were invited for visiting many pathology laboratories in Tokyo, Osaka, Kobe and Awaji Island. Those laboratories are very well designed and equipped with the modern materials such as a very good evaporating system which can protect the staff from the formalin and others toxic reagent exposition. I am impressed with this system. All the process are well treated since the receiving of specimen to the diagnosis (pre-analytic, analytic and ...) for minimize the errors which include also the responsibility of the personal and also many others automatic systems (system barcode, block printing, automatic staining...). The workflow in the lab is good. In Japan, there is a good collaboration between pathologists and others clinicians regularly. This is an important thing to make sure that everyone has the same language (we understand each other). I had a chance to experience a real clinic-pathology conference in Juntendo University hospital where I could see how the medical specialists interact or participate in the meeting. This meeting provided not only an accurate and informative work but it is a great chance for the resident or young specialist to learn. Moreover, the curriculum for resident training is very strict. One resident has to fill every criteria to complete or to be certified pathologist. The limitation of minimum number of case (cytology, histology and autopsy) for a resident to be experienced has set up. The residents have to pass the final exam. I also had a good lecture about cancer registration, which I have not known before. This system is very important for the research purpose. We went also to Awaji Island where there is only one resident working with the telepathology system supervised by the experts from two universities (Kobe University and Nagasaki University). We learned about the role of the professional society such as Japanese Society of Pathology (JSP) and International Academic Pathology (IAP). I admire the role of every society especially the creation of the own classification of tumor. We attended the 63<sup>rd</sup> annual autumn meeting of JSP and 56<sup>th</sup> annual autumn meeting of the Japanese Society of Clinical Cytology (JSCC).

This training gave me the idea to develop the pathology laboratory of Calmette hospital. Our pathology laboratory has already performed the special stains and immunohistochemistry stains but some technics are still now in a limited quality. We will change some protocols to improve our staining quality. I will try to work with other clinicians by joining the clinic-pathology conference and explain them the importance of clinical findings that we need to make an accurate and informative diagnosis. Some common plans were discussed among us. We will start to help and exchange our technical skill and knowledge in a monthly meeting, which will start from January 2018. We want also have a Cambodian Society of Pathology and want to build up IAP Cambodian Division. Professor CHHUT Serey Vathana will talk with the dean of the University Health and Science about the resident recruitment.

In conclusion, I want to express my deep thank to all related societies and Japanese friends that helped us to have this fruitful training.



(写真) がん研有明病院での研修



(写真) 日本医科大学多摩永山病院



Ken Nara, Pathology Technologist  
University of Health Sciences in Phnom Penh, Cambodia

From October 26 to November 19, 2017, I nominated to joint in a group of Cambodia pathology technology to attend a course on Improving Pathology Technology for cervical cancer screening in Japan. I would like to state what I acquire in detail as followings.

Perception of course:

Maintaining the microtome is very important in the workplace because it is the routine for me and for the organization. I obtain the perception on maintaining microtome. It takes a period of maintenance about two months.

I perceive how to cut the sections and the protocol depending on the application, which allow thin sections to be cut cleanly, comparing with A and B.

A- In room temperature, I cut 10 histo-pathological slides with size 4 micrometer.

In frozen I also cut 10 histo-pathological slides with size 4 micrometer.

B- In room temperature, I cut the section from two to eight micrometer.

In frozen I cut the section from two to eight micrometer as well.

I also learned how to dilute the reagents such as Hematoxilin Carrazi, Hematoxilin Mayer, and Eosine. Staining with the reagents above, it has differentiated clearly. For instance, Hematoxilin Carrazi seems to be highlighted in color than Hematoxilin Mayer. Simultaneously, comparing between histo-pathological slides cutting from Cambodia and histo-pathological slides in Japan, the same blocks that have brought, and cut them and stain, has told me properly. Processing in Japan is better than I expect, especially I can understand how to manage the histo- pathological slides decrease the air.

Moreover, I learn the way of cutting in frozen section: 1) fixation with ice acetone 2) fixation with Pino (machine) 3) direct fixation. Cutting adjusts 4 micrometer. Then historical slides are stained immediately. Professor explained that first provided good result because it had no crystal, second was also good but it was more expensive, the last contained of much crystal. And I learned the way of fixation according to the size of sample with formalin 10%.

- 1- EvG, it is used for indicating the fiber reticulum, and/or cartilage.
- 2- Giemsa, the Giemsa staining procedure is specific for histological staining of Helicobacter pylori in tissue sections.
- 3- PAS, it is a staining method used to detect of fungus, observation of renal basement membrane...
- 4- Alcian blue, it is used to stain can detect the mucin and acidic mucosa.
- 5- Alcian blue and PAS Staining Protocol
- 6- Immunohistochemistry, it is used to anatomically visualize the localization of a specific protein or antigen in cells by use of a specific primary antibody that binds to it, and determines benign or malign.

I learned the way to smear cytology (normal/ rapid), fix cytology, stain Papanicolaou, May-Grünwald Giemsa (MGG) staining, at the same time, I learn the way of managing laboratory, following SOP, the quality control, especially of reagents for use, and I obtain knowledge of methods to prevent and/or detect cervical cancer in the early stage.

Additionally, I was invited to attend The 56<sup>th</sup> Annual Autumn Meeting of the Japanese Society of Clinical Cytology in Fukuoka 18-19/11/17.

Expected result:

As for the future plan, I expect that when I back home, I plan to accomplish two major things: 1) sharing knowledge gained here for my colleague, 2) providing and/or disseminating for medical students they will become physicians the way of fixation of tissue or biopsy send to laboratory for diagnosis. To be good result is the first step of fixation.



Dr. Pich Pintuna, MD,  
Assistant of pathologist  
in pathology lab of  
Calmette Hospital

What I learnt is very important to improve more my knowledge. Because Japan has very high technology. I was so happy to study with Professors and Doctors at hospital, institute and university. They always took their time for us, even though they are busy, so I have only especial thanks for them and for Japanese government. I still remember for kindness of Japanese people and hope that training program will be continued for Cambodian people to upgrade the knowledge. When I came back I showed what I learned in Japan to my pathologist team, and shared knowledge with my colleague.



Dr. Choronai Vun, MD,  
Pathology department of  
Preah Kossamak Hospital

I think the ways to improve quality of pathological specimen at Preah Kossamak Hospital as followings; 1)Improve knowledge of pathology staff, such as prepare lecture to teach my staff what I learned in Japan and show them slides before and after the training by following standard methods, 2)Buy new reagents and equipment, such as hematoxylin and Eosin powder, PAP stain solution, Alcian blue – PAS staining solution, Antibody (ER, PR, CD20, CD3) for IHC, if possible: one Microtome and one microscope, 3)Request clinicians to complete order form, such as patient's information, clinical information, suspect diagnosis, specification of specimen, 4) Make procedure for clinicians, such as how to do fixative specimen and how to transfer specimen to pathology lab.

I was very happy about training at Japan. The training was challenging but it is benefit a lot for me to improve knowledge. Moreover, Sensei, Professor, Doctor and coordinator are all generous and helpful.

Last but not lease, I would like to say special thanks to Sensei, Professor, Doctor, coordinator, NCGM, and Japanese government help us for training about new technique for improving quality.



(写真)  
大阪国際がんセンターでの  
研修修了式

## 病理本邦研修帰国後報告会

12月15日に病理研修生8名が本邦研修の報告を行い、カンボジア産婦人科学会会長と理事、研修生の所属するコサマック病院の副院長、研修生の所属する3病院の婦人科部長、健康科学大学副学長、カルメット病院のフランス人病理医が出席しました。病理医師、病理技師がそれぞれ日本での研修内容を説明し、学んだ内容と今後の活動計画を発表しました。また3病院と大学それぞれが、施設毎に病理医師と技師がともに行う活動計画についても発表しました。出席者からは、病理教育について、また、凍結切片、固定法など技術的なことなど多くの質問やコメントが寄せられました。



(写真) 病理本邦研修帰国後報告会

## プロジェクトを取り巻く動き

- 12/1 : SCGO 理事会
- 12/10-12/19 : 松本安代医師カンボジア派遣
- 12/10-1/15 : 上田あかね医師カンボジア派遣
- 12/15 : 病理チームミーティング
- 12/19 : SCGO 理事会
- 12/26 : カナル SCGO 学会長カンボジア NCGM 拠点会議にて当プロジェクトについて発表