온라인 학술지 개방에서 XML 파일 변환의 중요성

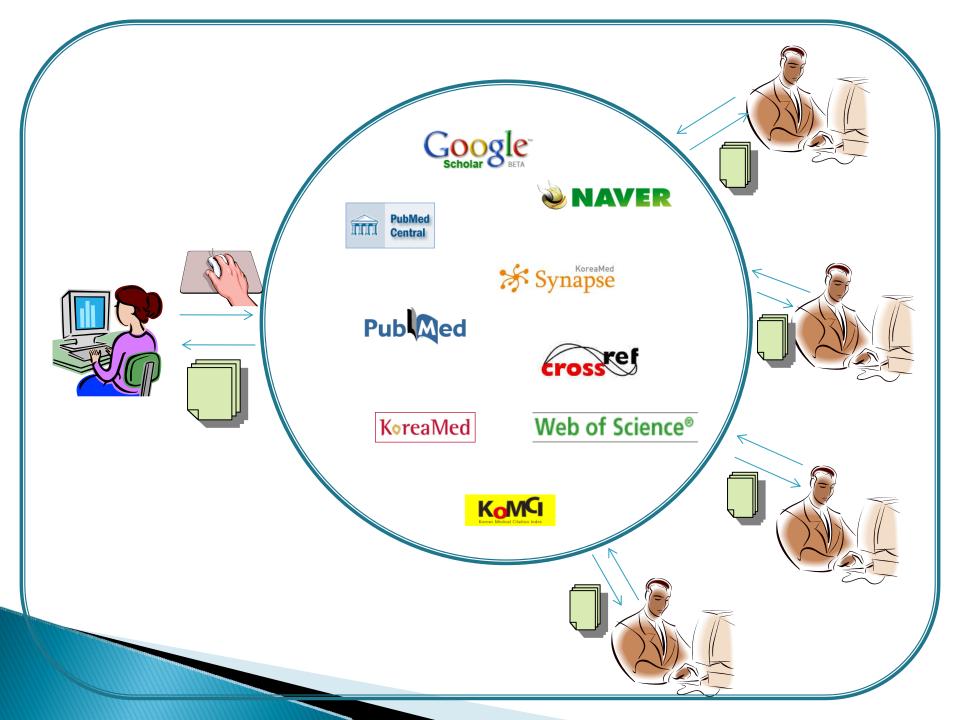
의학학술지 온라인 개방에 대한 심포지엄 대한의학회 공효순

이용자들의 정보 수집의 변화

- ▶ 새로운 정보 기술의 발달
 - 정보의 물리적 공간→ 사이버 공간으로 확대
 - 인터넷을 통한 세계는 하나



- 인터넷 통해 어느 누구나 시간, 장소에 제한 받지 않고 정보 검색 및 접근이 가능
- 필요한 정보가 어디에 소장되어 있느냐?→어떻게 빨리 쉽게 접 근하여 찾을 수 있는가?
 - 학술지 논문을 찾기 위해, 도서관을 찾아가거나 인쇄본을 구독하지 않음.
 - 컴퓨터를 통해 저널 데이터베이스에서 논문을 검색하고, 단지 마우스 클 릭으로 이동하여 전체를 확인 후, 출력함.
 - 고주 접속하거나, 정보의 질을 보장 받을 수 있는 DB로 접속



효과적인 온라인 학술지 개방을 위해

- Full-text journal website
- Be in major Internet search engines
 - Google, Naver...
- Be in a major indexing databases
 - PubMed, Web of Science, KoreaMed, KoMCI
- Be in a major (free) e-journal database/digital archive
 - PubMed Central, Synapse
- Linking to and from
 - Full-text(Pubmed Linkout, KoreaMed Linkout)
 - Reference
 - -CrossRef linking using DOI

What file format is required by major database? PubMed

First, it would speed the public availability of the citation and abstract considerably if the data for your journal were transmitted electronically to the Library in its required XML-tagged format. Please refer to NLM's Web site: http://www.ncbi.nlm.nih.gov/entrez/query/static/publisher.html for information for publishers including the requirements for our XML-tagged format. Communications about submission of citation and abstract data electronically to NLM should be sent to publisher@ncbi.nlm.nih.gov.

PubMed Central

Technical Requirements for PMC Journals

Required Files

A journal must provide PubMed Central the **full text of articles** in an XML (eXtensible Markup Language) or SGML (Standard Generalized Markup Language) format that conforms to an acceptable journal article DTD (Document Type Definition). PMC does not accept articles in HTML format.

What file format is required by major database?

SCI

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- Build and operate the necessary systems on their side which compose the XML deposit files and submit them to CrossRef
- Regularly monitor their transactions with CrossRef, identify and correct errors or bring to our attention problems arising due to a CrossRef system malfunction.
- Remain vigilant about updating the metadata for their DOIs, particularly the URL of the resource.
- Review the various CrossRef reports issued to members and correct any identified errors.

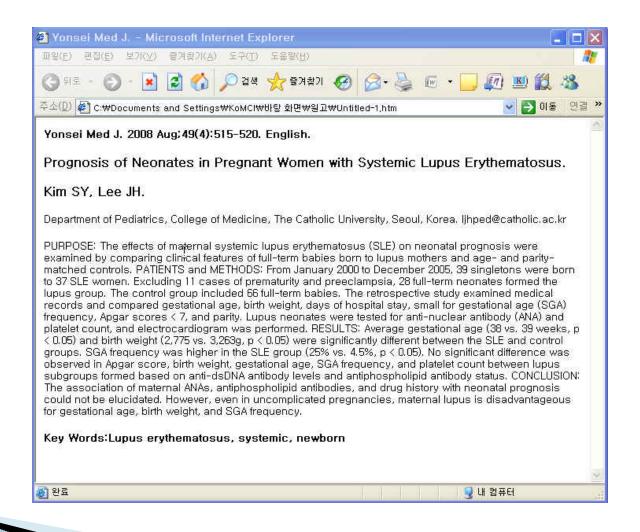
온라인 학술지 문서 포맷

- SGML (Standard Generalized Markup Language)
 - HTML (Hyper Text Markup Language)
 - XML (eXtensible Markup Language)
 - PDF (Portable Document Format)

Why XML?

- XML(eXtensible Makeup Language)
 - 1996년 W3C(World Wide Web Consortium)에서 제안
 - SGML과 HTML의 한계를 극복하기 위하여 만든 차세대 국제표준 인터넷 data 포맷
- ▶ 데이터의 다양한 표현
- 사용자가 DTD를 정의함으로써 임의로 태그를 만들어 사용 가능 →어떤 분야의 데이터도 정확하고 자세하게 기술
- 논리적인 구조 정보를 효율적으로 지원
- > 정확한 검색
- ▶ 문서의 재사용 가능

HTML과 XML 구현의 예



HTML

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</head>

<body>

<h1>Yonsei Med J. 2008 Aug;49(4):515-520. English.</h1>

<h2>Prognosis of Neonates in Pregnant Women with Systemic Lupus Erythematosus.</h2>

<h3>Kim SY, Lee JH.</h3>

Department of Pediatrics, College of Medicine, The Catholic University, Seoul, Korea. ljhped@catholic.ac.kr

PURPOSE: The effects of maternal systemic lupus erythematosus (SLE) on neonatal prognosis were examined by comparing clinical features of full-term babies born to lupus mothers and age- and parity-matched controls. PATIENTS and METHODS: From January 2000 to December 2005, 39 singletons were born to 37 SLE women. Excluding 11 cases of prematurity and preeclampsia, 28 full-term neonates formed the lupus group. The control group included 66 full-term babies. The retrospective study examined medical records and compared gestational age, birth weight, days of hospital stay, small for gestational age (SGA) frequency, Apgar scores < 7, and parity. Lupus neonates were tested for anti-nuclear antibody (ANA) and platelet count, and electrocardiogram was performed. RESULTS: Average gestational age (38 vs. 39 weeks, p < 0.05) and birth weight (2,775 vs. 3,263g, p < 0.05) were significantly different between the SLE and control groups. SGA frequency was higher in the SLE group (25% vs. 4.5%, p < 0.05). No significant difference was observed in Apgar score, birth weight, gestational age, SGA frequency, and platelet count between lupus subgroups formed based on anti-dsDNA antibody levels and antiphospholipid antibody status. CONCLUSION: The association of maternal ANAs, antiphospholipid antibodies, and drug history with neonatal prognosis could not be elucidated. However, even in uncomplicated pregnancies, maternal lupus is disadvantageous for gestational age, birth weight, and SGA frequency.</p>

<h4>Key Words:Lupus erythematosus, systemic, newborn</h4>

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<MiddleName>Hyun</MiddleName>
<LastName>Lee</LastName>
</Author>
< Affiliation > Department of Pediatrics, College of Medicine, The Catholic University, Seoul, Korea.
    ljhped@catholic.ac.kr</Affiliation>
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<Abstract>PURPOSE: The effects of maternal systemic lupus erythematosus (SLE) on neonatal prognosis were examined by comparing clinical features of full-term babies born to lupus mothers and age- and parity-matched controls. PATIENTS and METHODS: From January 2000 to December 2005, 39 singletons were born to 37 SLE women. Excluding 11 cases of prematurity and preeclampsia, 28 full-term neonates formed the lupus group. The control group included 66 full-term babies. The retrospective study examined medical records and compared gestational age, birth weight, days of hospital stay, small for gestational age (SGA) frequency, Apgar scores &It: 7, and parity. Lupus neonates were tested for anti-nuclear antibody (ANA) and platelet count, and electrocardiogram was performed. RESULTS: Average gestational age (38 vs. 39 weeks, p &It; 0.05) and birth weight (2,775 vs. 3,263g, p &It; 0.05) were significantly different between the SLE and control groups. SGA frequency was higher in the SLE group (25% vs. 4.5%, p &It; 0.05). No significant difference was observed in Apgar score, birth weight, gestational age, SGA frequency, and platelet count between lupus subgroups formed based on anti-dsDNA antibody levels and antiphospholipid antibody status. CONCLUSION: The association of maternal ANAs, antiphospholipid antibodies, and drug history with neonatal prognosis could not be elucidated. However, even in uncomplicated pregnancies, maternal lupus is disadvantageous for gestational age, birth weight, and SGA frequency.

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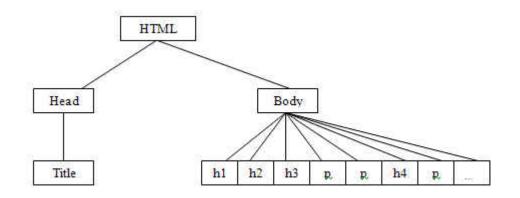
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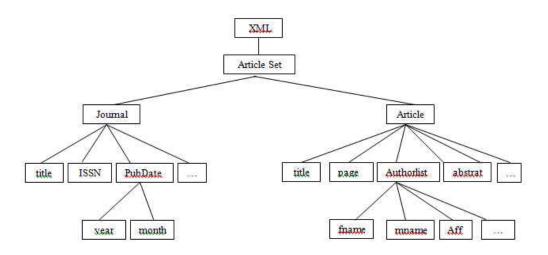
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HTML과 XML의 구조 비교





HTML vs. XML

| 구분 | HTML | XML |
|---------|------------------------|--------------------------|
| 태그 | DTD 정의 사용자정의 불가능 | 사용자 정의 태그 지원 |
| 문서의 재사용 | 불가능 | 가능 |
| 응용분야 | 단순한 구조의 문서 | SGML과 동일 웹상의 교환 문서 |
| 문서 작성 | 쉽고, 간결함 논리구조 작성 어려움 | 다양하고 자세한 문서의 표현 이 가능함 |
| 문서 검색 | 효과적 검색 어려움 | 정확한 검색 가능 |

PDF 구현의 예

Yonsei Med J 49(4):515 - 520, 2008 DOI 10:3349/ymj.2008.49.4.515

Original Article

Prognosis of Neonates in Pregnant Women with Systemic Lupus Erythematosus

So-Young Kim and Jung-Hyun Lee

Department of Pediatrics, College of Medicine, The Catholic University, Seoul, Korea.

Purpose: The effects of maternal systemic lupus erythematosus (SLE) on neonatal prognosis were examined by comparing clinical features of full-term babies born to lupus mothers and age- and parity-matched controls. Patients and Methods: From January 2000 to December 2005, 39 singletons were born to 37 SLE women. Excluding 11 cases of prematurity and preeclampsia, 28 full-term neonates formed the lupus group. The control group included 66 full-term babies. The retrospective study examined medical records and compared gestational age, birth weight, days of hospital stay. small for gestational age (SGA) frequency, Apgar scores < 7, and parity. Lupus neonates were tested for anti-nuclear antibody (ANA) and platelet count, and electrocardiogram was performed. Results: Average gestational age (38 vs. 39 weeks, p < 0.05) and birth weight (2,775 vs. 3,263 g, p < 0.05) were significantly different between the SLE and control groups. SGA frequency was higher in the SLE group (25% vs. 4.5%, p < 0.05). No significant difference was observed in Apgar score, birth weight, gestational age, SGA frequency, and platelet count between lupus subgroups formed based on anti-dsDNA antibody levels and antiphospholipid antibody status. Conclusion: The association of maternal ANAs, antiphospholipid antibodies, and drug history with neonatal prognosis could not be elucidated. However, even in uncomplicated pregnancies, maternal lupus is disadvantageous for gestational age, birth weight, and SGA frequency.

Key Words: Lupus erythematosus, systemic, newborn

thought to experience disease deterioration due to pregnancy, but varying incidence rates have been reported.1 Maternal lupus is known to influence fetal and neonatal outcomes and is associated with increased incidence of obstetric complications such as stillbirth, abortion, prematurity, intrauterine growth restriction (IUGR), and neonatal complications such as congenital heart block and neonatal lupus.13 In particular, mothers with increased SLE activity, lupus nephritis, hypertension, and who are positive for antiphospholipid and anti-Ro/ SS-A antibodies have relatively poor fetal and neonatal prognosis. However, few studies have investigated the neonatal prognosis in SLE mothers who delivered at full term without obstetrical complications.1

Our study focused on the effects of SLE on perinatal outcome by comparing clinical features of full-term neonates born to lupus mothers and normal pregnant women.

PATIENTS AND METHODS

PDF vs. XML

| 구분 | PDF | XML |
|-------|-------------------------------|----------------------------|
| 표준성 | Adobe라는 업체가 개발한 개 발 데이터 | 세계 W3C가 제정한 국제표준 데이터 |
| 웹지원 | Acrobat Reader라는 소프트 웨어 필요 | 일반 상용 웹브라우저 지원 |
| 검색지원 | 데이터 Index 정보 등 단순한 DB 검색 | 구조적 내용 검색까지 모두 지원 |
| 문서 구조 | 문서구조와 상관없이 하나의 파일 형태로 저장 | 구조적 문서내용 자체가 DB 에 저장 |
| 효율성 | 모든 자료를 이미지화하여 추 가 작업시 불편 | 데이터 구축 및 추가/수정/삭 제 등 효율 |

온라인학술지 Full-tex http://pdf,medrang.co.kr/paper/pdf/Kjo2/049/Kjo2049-10-00,pdf

미태수.미화

고려대학교 의과대학 안과학교실

대한안과학회 2008 Oct 049(10): 1553-1558.

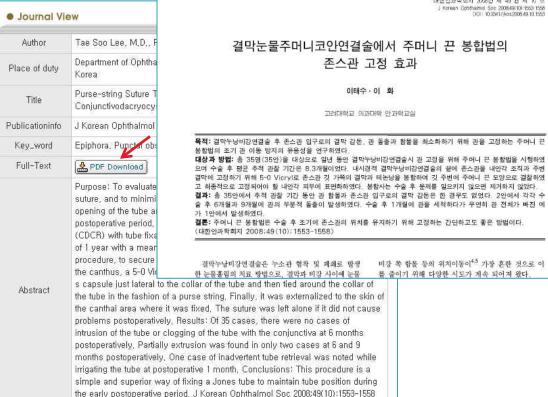
K K 소속

제목

출판정보

HTML(Abstract) + PDF





결막눈물주머니코안연결술에서 주머니 끈 봉합법의 존스관 고정 효과

대한안과학회지 2008년 제 49 권 제 10 호 J Korean Ophthalmol Soc 2008;49(10):1553-1558 DOI: 10.3341/Jkos.2008;49(10.1553

온라인학술지 FU Journal Abstract

HTML(Abstract, Full-

Print I

외부로 나갈 수 있는

5 On-line

Is Transcranial Doppler Ultrasonography Old-fashioned?: One Institutional Validity Study

Pan Yeal Han, MD:Jae Hoon Kim, MD:Hee In Kang, MD:Byung Gwan Moon, MD:Seung Jin Lee, MD: and Joo Seung Kim, MD Department of Neurosurgery, School of Medicine, Eulji University, Nowon Eulji Hospital, Seoul, Korea

Objective: The purpose of this study is to investigate the correlation between various transcranial Doppler (TCD) ultrasonography parameters and clinical vasospasm after aneurysmal subarachnoid hemorrhage (SAH).

Methods: This study enrolled 40 patients presented with aneurysmal SAH between September 2006 and August 2007. We measured differences of mean blood flow velocity (BFVm), highest systolic blood flow velocity (BFVh), and Lindegaard ratio (LR) in the middle cerebral artery on TCD examination. These parameters were evaluated for correlation with clinical vasospasm by univariate analysis and the receiver operating

Journal

Volume 44, Number 2 (8/2008)

(Clinical Article, 63-6)

NEUROSURGICAL

Is Transcranial Doppler Ultrasono Pan Yeal Han, MD:Jae Hoon Kim, MD:Hee Ir

🚣(D) 🎒 http://jkns.or.kr/htm/journal_v.asp?v=44&n=2

Preliminary Report of Multisession Patients

Jong-Won Kim, MD; Yong-Seok Im, PhD; Do-(Clinical Article, 67-71)

online@MLComm

www.jkns.or.kr 10.3340/jkns.2008.44.2.63

J Korean Neurosurg Soc 44:63-66, 2008

Clinical Article

Is Transcranial Dopplei Reference를 통해

Pan Yeal Han, M.D., Jae Hoon Kim, M.D., F Department of Neurosurgery, School of Medicine,

Objective: The purpose of this stud clinical vasospasm after aneurysmal subara

Methods: This study enrolled 40 patients pre differences of mean blood flow velocity (BFVm), h on TCD examination. These parameters were eva characteristic analysis.

ospasm. The be Results: Twelve patients (30%) developed clin cal vasospasm w ealed to be differences of BFVm, BFVh, and LR values there is TCD test and TCD (7 cm/s cm/s, 0.45 respe of any one of three parameters was 60% and the negative predictive value was 100%

길이 없어!!

Conclusion: TCD is still considered a useful tool for screening clinical vasospasm. To confirm the predictive value of the above parameters, further prospective study will be needed.

KEY WORDS: Receiver operating characteristic analysis · Subarachnoid hemorrhage · Transcranial doppler ultrasonography · Vasospasm.

best TCD parameters for the detection of clinical vasospasm were revealed est and 3rd TCD (7 cm/s, 11.5 cm/s, 0.45 respectively). The positive ative predictive value was 100%

cal vasospasm. To confirm the predictive value of the above parameters.

rrhage:Transcranial doppler ultrasonography:Vasospasm.

best-performing parameter was peak systolic velocity of 182 cm/s. Also, Mascia culated by ROC curve analysis, accurately detects clinical vasospasm.

h modification. The main distinction between our study and others is cessive study. One knotty problem in interpreting TCD results Considering for this discrepancy of absolute flow velocity from of parameters in a serial test still be useful to generalize individual TCD data ient with aneurysmal SAH correlated better with clinically significant vasospasm there were no domestic clinical studies in which the differences of various TCD med ROC curve analysis for various parameters to assess TCD's ability to

rrelate clinical vasospasm with angiographic vasospasm and combine TCD data aphy (CT), perfusion CT, single photon emission computed tomography, and isospasm in patients with aneurysmal SAH. Second, we did not investigate current data should be validated prospectively in another series of patients.

To confirm the predictive value of the above parameters, it will be necessary to

ospasm. Eur J Ultrasound 16: 3-10, 2002

spasm with transcranial Doppler ultrasound. J Neurosurg 60: 37-41, 1984 n and interpretation of diagnostic tests and procedures : principles and

nder receiver operating characteristic curves derived from the same cases.

- 5. Hanley JA, McNeil BJ: The meaning and use of the area under a receiver operating characteristic (ROC) curve. Radiology 143: 29-36. 1982
- 6. Jabre A. Babikian V. Powsner RA. Spatz EL: Role of single photon emission computed tomography and transcranial Doppler ultrasonography in clinical vasospasm. J Clin Neurosci 9: 400-403, 2002

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ebral artery

operating

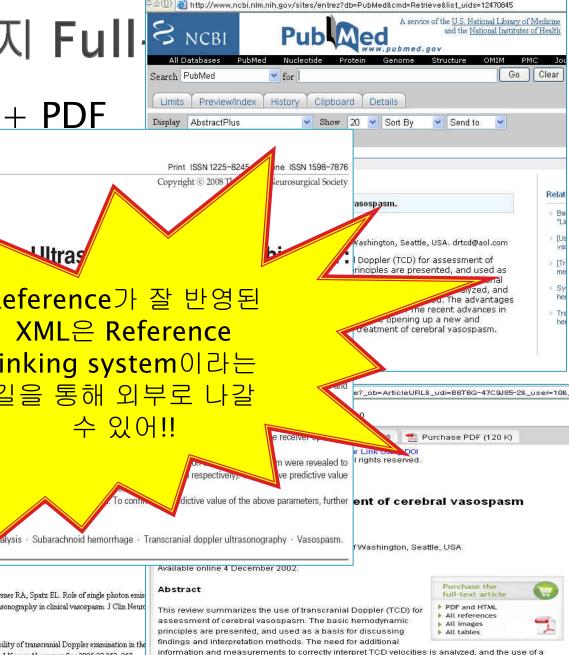
7. Kim JM, Kang SD: Reliability of transcranial Doppler examination in the diagnosis of delayed ischemia after subarachnoid hemorrhage. J Korean Neurosurg Soc 37: 253-257, 2005

Radiology 148: 839-843, 1983

온라인학술지 Full 을 NCBI

XML(Full-Text) + PDF

Clinical Article





Reference가 잘 반영된 XML[≥] Reference linking system이라는 길을 통해 외부로 나갈

6 Jabre A, Babikian V, Powsner RA, Spatz EL. Role of single photon emis transcranial Doppler ultrasonography in clinical vasospasm. J Clin Neuro Pub Ged Frost

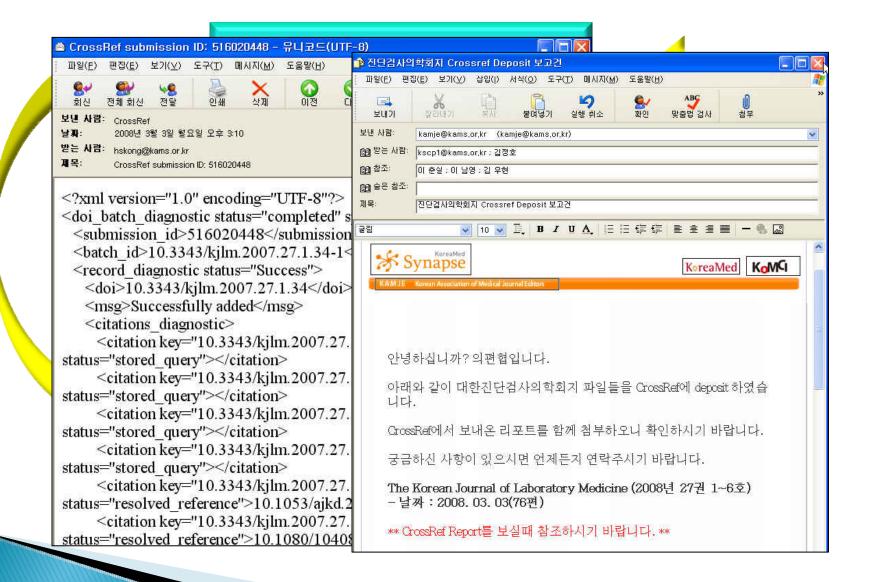
7. Kim JM, Kang SD. Reliability of transcranial Doppler examination in the subarachnoid hemorrhage, J Korean Neurosurg Soc 2005;37:253-257.

KoreaMed KoMCI

special extracranial Doppler technique is recommended. The advantages and limitations of the 'Lindegaard Index' (LI) are discussed. The recent advances in the use of TCD for cerebral autoregulation testing are opening up a new and promising avenue in diagnosis, monitoring and treatment of cerebral vasospasm.

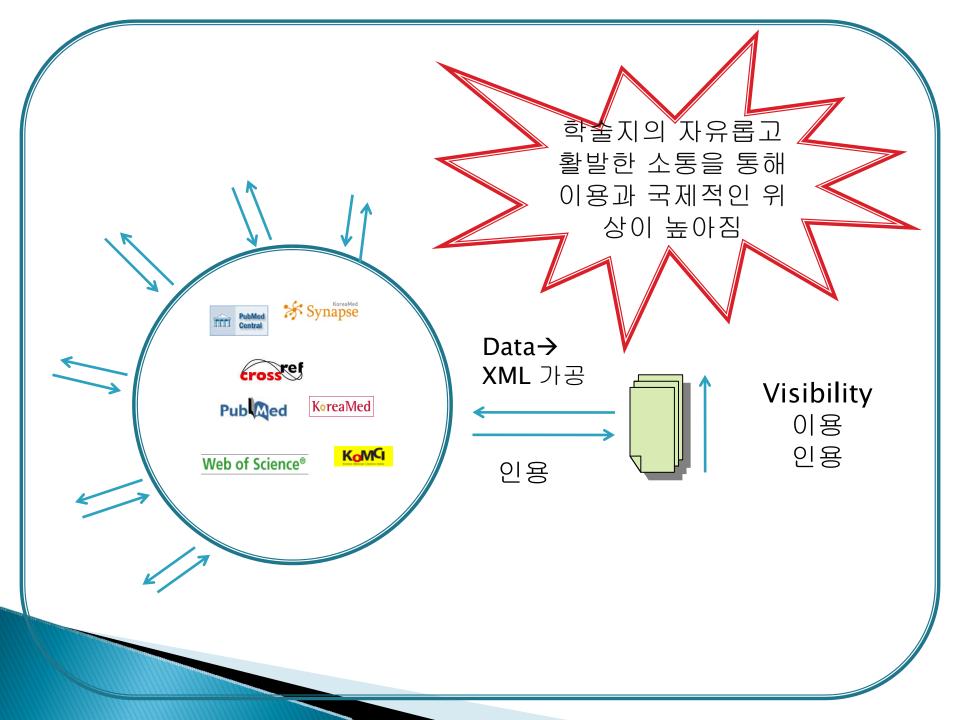
온라인학술지 Full-text 구축 형태





결 론

- 온라인에서 학술지의 원활한 소통을 위한 전략 중 하나는 주요
 Database에 보다 많이 노출되는것
- 이를 위해 각 Database가 요구하는 포맷으로 데이터를 가공 및 변환해야 하는 것이 필수
 - 대부분 DB 구축에 있어 가장 많이 활용되는 XML 형태를 선호
 - 특히, 단순한 XML 구현이 아닌 PMC, Synapse 수준의 XML
- ▶ 따라서 기술적인 측면에서 데이터의 XML 가공은 필수 -전문적인 지식, 기술, 비용
- 학회들이 이런 프로세스와 정보의 트랜드를 이해하고 관심을 기울여국제적 경쟁에서 훌륭한 학술지로 자리 매김 하기를 기대함



감사합니다.

