Annual Refresher Course for Family Physicians

Tuesday, 3 December 2019

Ophthalmic Emergencies

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Academic appointments:
- Assistant Professor of Ophthalmology, McGill University
- Faculty Lecturer, Université de Montréal

Clinical appointments:
- The Jewish General Hospital
- McGill University Health Centre (MUHC)
- Hôpital Maisonneuve-Rosemont

McGill | Département d'ophtalmologie | Department of Ophthalmology

Objectives

- Recognize signs and symptoms of ophthalmic emergencies
- Appropriately triage patients presenting with ocular complaints
- Familiarity with the minimal ophthalmic exam required to evaluate an ocular emergency
- Initiate basic management of ophthalmic emergencies
- Awareness of the referral pathways for urgent and non-urgent consultations within the McGill University Ophthalmology service

Introduction

- Prompt recognition and timely management of ocular emergencies in primary care are essential to prevent permanent vision loss
- Access to ophthalmology is often unclear : ED vs direct referral
- Between 2006-2011 in the USA: 44% of ocular emergencies to ED were for non-urgent problems, 75% within scope of practice of optometrist
- Over-crowded EDs lead to increased wait-times and increased costs
- Challenges: limited training, specialized exam skills, vague complaints
- How can we better evaluate our patients and optimize the delivery of care?

Basic Ophthalmic Assessment

- ☑ History
- ☑ Past ocular history
- ☑ Medications including drops
- ☑ General review of systems when applicable
- ☑ Vision – distance and near, specify if with or without glasses
- ☑ Intraocular pressure (tonopen)
- ☑ Exam of external structures: lid, lashes
- ☑ Pupils – direct and consensual response
- ☑ Visual fields by confrontation
- ☑ Slit lamp exam: fluorescein strip for corneal pathology, corneal foreign body. If not possible, at minimum, assess the eye without slit lamp
- ☑ Fundoscopy: optic nerve, vessels, macula
- ☑ Pediatrics: red reflex, corneal light reflex

Case 1:
Vision loss

- 75 year old patient seen by GP at routine follow-up complained about new unilateral vision loss noticed ~ 4-6 months ago
- How do you approach this patient?

Case 2:

Transient vision loss

- 85 yo M seen by GP for routine eye exam. Patient described transient right sided vision loss that always returns to normal. Vision in clinic was at baseline.
- PMHx: hypertension, hyperlipidemia - both well-controlled
- POHx: bilateral cataract surgery
- How would you approach this patient?
- Where and when would you refer?

Case 3:
Glaucoma

- 65 yo M, new patient with significant ocular history of advanced glaucoma with glaucoma surgery 5 years ago
- Poor historian, lost to follow-up with ophthalmology
- Needs renewal on long-term glaucoma drops (Xalacom QHS OU)
- No ocular complaints
- Check intraocular pressure in clinic with tonopen – 60 OU.
- How do you approach this patient?

Case 4:
Flashing lights and floaters

- 45 yo myopic female presents to your walk-in clinic with flashing lights and floaters for 12 hrs. Normal vision. No prior ocular problems. What do you do?
  - A. Refer to ED immediately
  - B. Fax consultation to community ophthalmology
  - C. Fax consultation to hospital (JHG/MUHC) ophthalmology
  - D. Call ophthalmology

Case 5:

Corneal foreign body sensation

- 30 yo M mechanic working in garage
- 1 day later felt foreign-body sensation and presented to you with injected right eye, reduced vision
- How do you approach this patient?

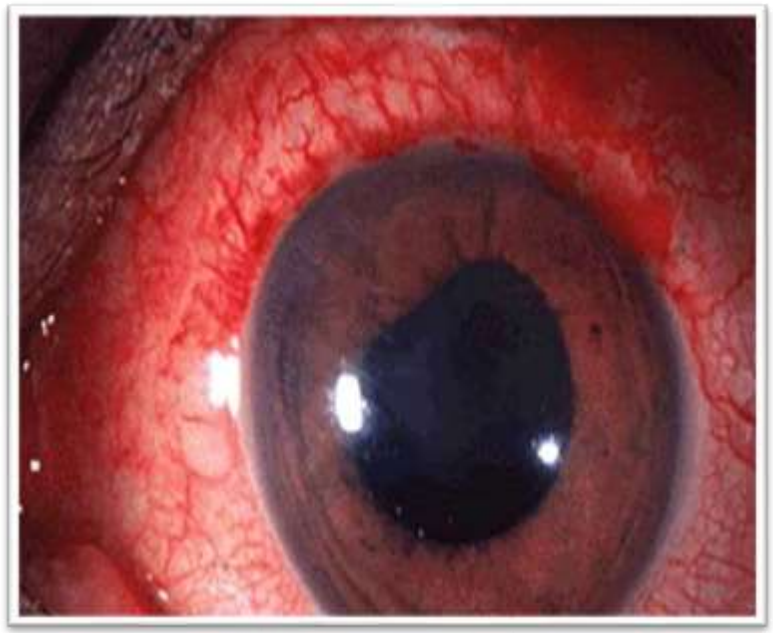
Case 6:

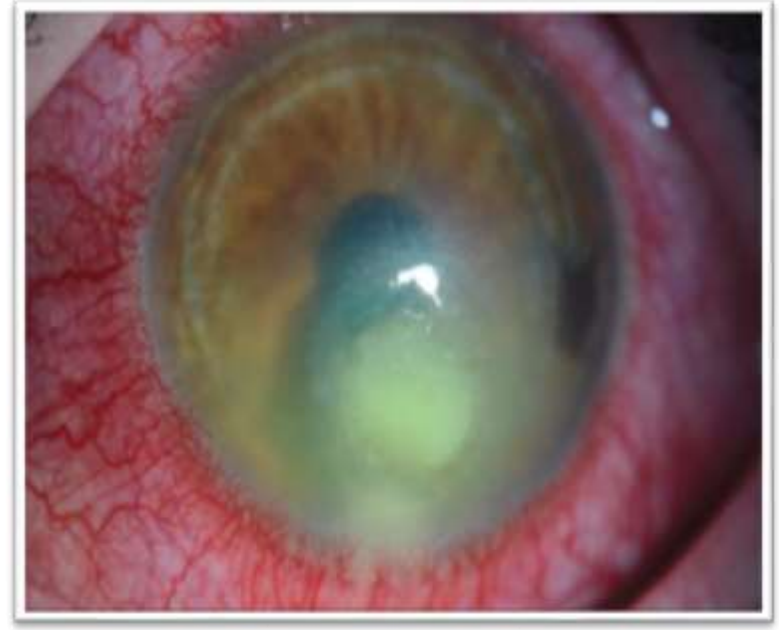
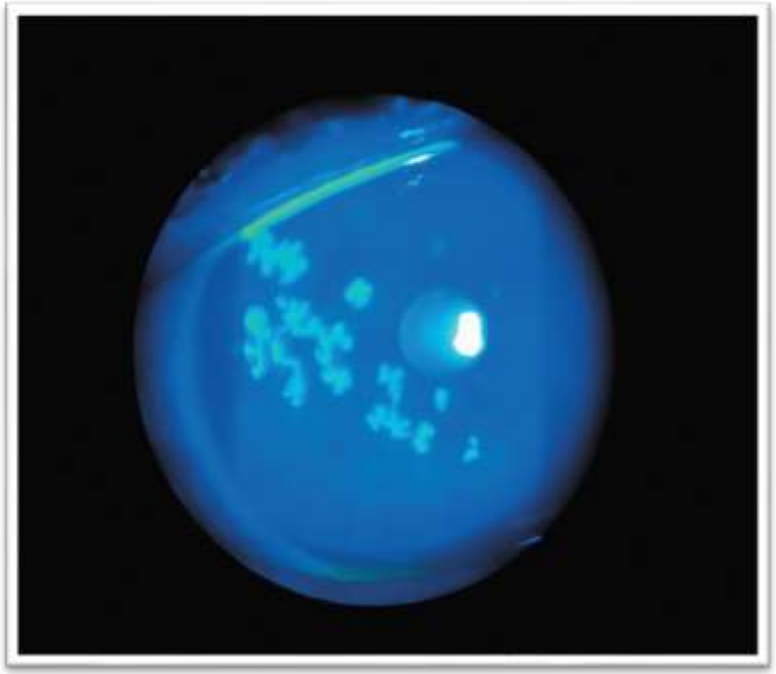
Contact-lens related problems

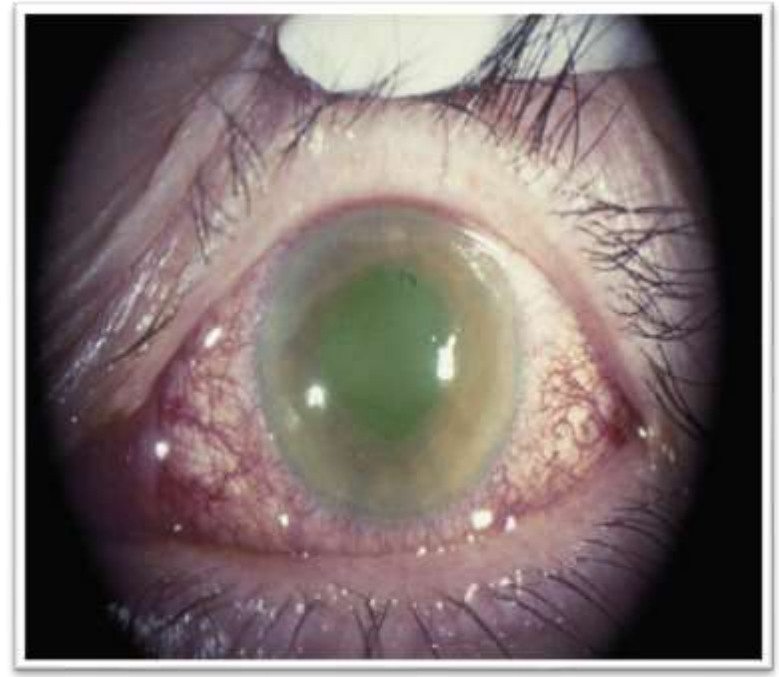
- 21 yo F contact-lens wearer presents with severely injected and painful right eye
- What is your differential diagnosis?
- How do you approach this patient?

Case 7:
Red eye

- 23 year old presents with right red eye?
- What questions do you ask on history to decide if this is benign or urgent?
- What is your initial management of this patient?
- What conditions will you refer urgently to ophthalmology?
- **Lunch and Learn today on Approach to Red eye**



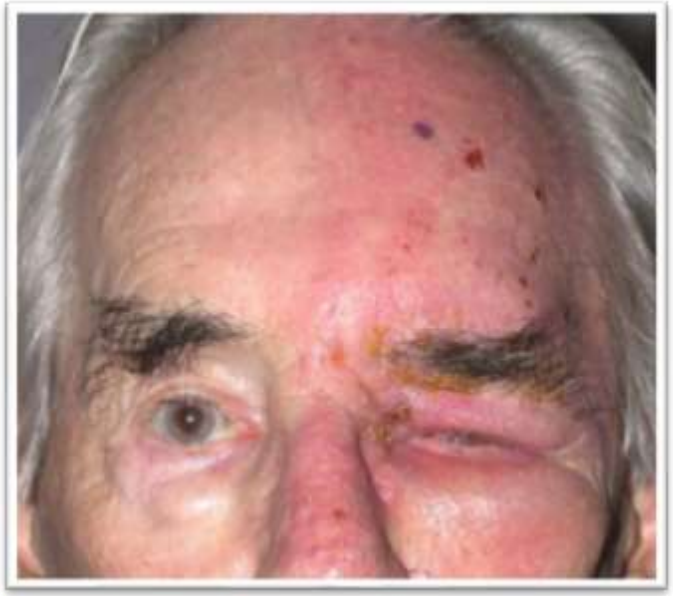



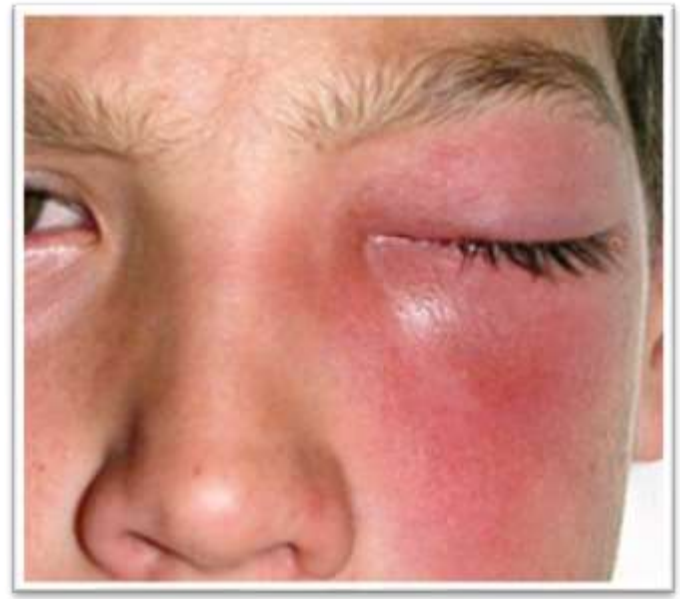


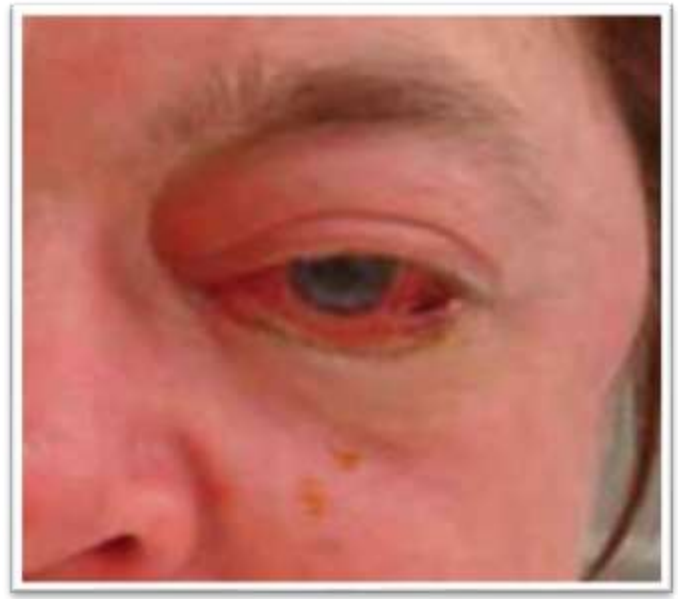
Case 8:

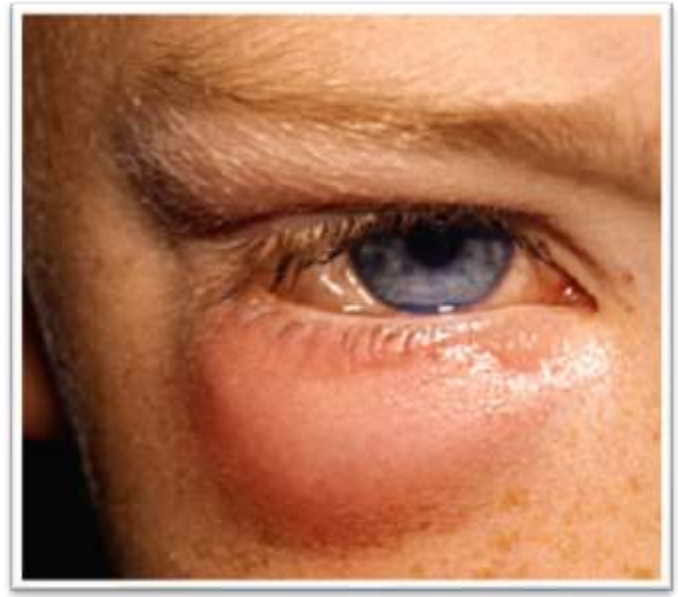
Rule out orbital cellulitis

- 45 yo F with right upper lid swelling x 4 days. Painful
- Using warm compresses twice a day with slight improvement
- No progression
- Is this an acute hordeolum or preseptal cellulitis?
- What is your approach for this patient?









Case 9:
Does my patient have ocular shingles?

- 65 yo M, health otherwise
- 2 days history of unilateral vesicular rash respecting midline
- Eye slightly injected, otherwise no ocular complaints
- You would like to rule out ocular involvement.
- How do you approach this patient?

Case 10:
Vision loss and headaches

- 35 yo F presents with severe headaches and transient vision loss
- Reliable historian
- Limited exam but vision seems OK in clinic
- What is your approach to this patient?

Case 11:
Double vision

- 75 yo M presents complains that he cannot drive, “everything is double.”
- What questions do you ask on history?
- What are red flag features that warrant urgent ophthalmology referral?

Case 12:
Child with eye-turning

- Adopted mother with 2.5 year old daughter
- 1 month of inward eye-turning, constant
- Recently appears to have reduced vision (right eye)
- What is your next step?
- What is your differential diagnosis?

Chronic eye diseases

- Chronic eye conditions require long-term ophthalmic follow-up
  - Diabetic retinopathy
  - Cataracts
  - Age-related macular degeneration
  - Glaucoma
  - Plaquinel screening
- They do not constitute medical emergencies unless acute and clear deterioration
- Practice good exam techniques: accurate history, vision and pressure
- Tertiary care centers generally not accepting for annual plaquinel or diabetic screening
- Non-urgent: community ophthalmologists or optometry (for initial assessment)

How to refer an emergency?

- Emergency consult services
  - PHONE / PAGE on-call consult service of Jewish General Hospital or MUHC
  - 24/7 on-call resident
  - Always staff ophthalmologist on-call as well
  - Resident will advise on appropriate time / location
  - Most urgent consults seen within 24 – 48 hours
  - If non-urgent, you will be advised
  - **Please do not fax urgent referrals**
  - **Avoid using ED as a point to access Ophthalmology**
  - **Ophthalmology emergency clinic is not a walk-in clinic**
- Pediatrics
  - Montreal Children's Hospital or Ste-Justine

Red flags for urgent ophthalmology referrals

- Sudden vision loss
- Pain
- Trauma (foreign body, chemical injury)
- Amaurosis fugax
- Binocular diplopia (intermittent or constant)
- Flashing lights / floaters
- Associated neurologic or systemic features
- Post-surgical pain or redness
- Papilledema
- Visual field loss
- Children

Questions and Answers

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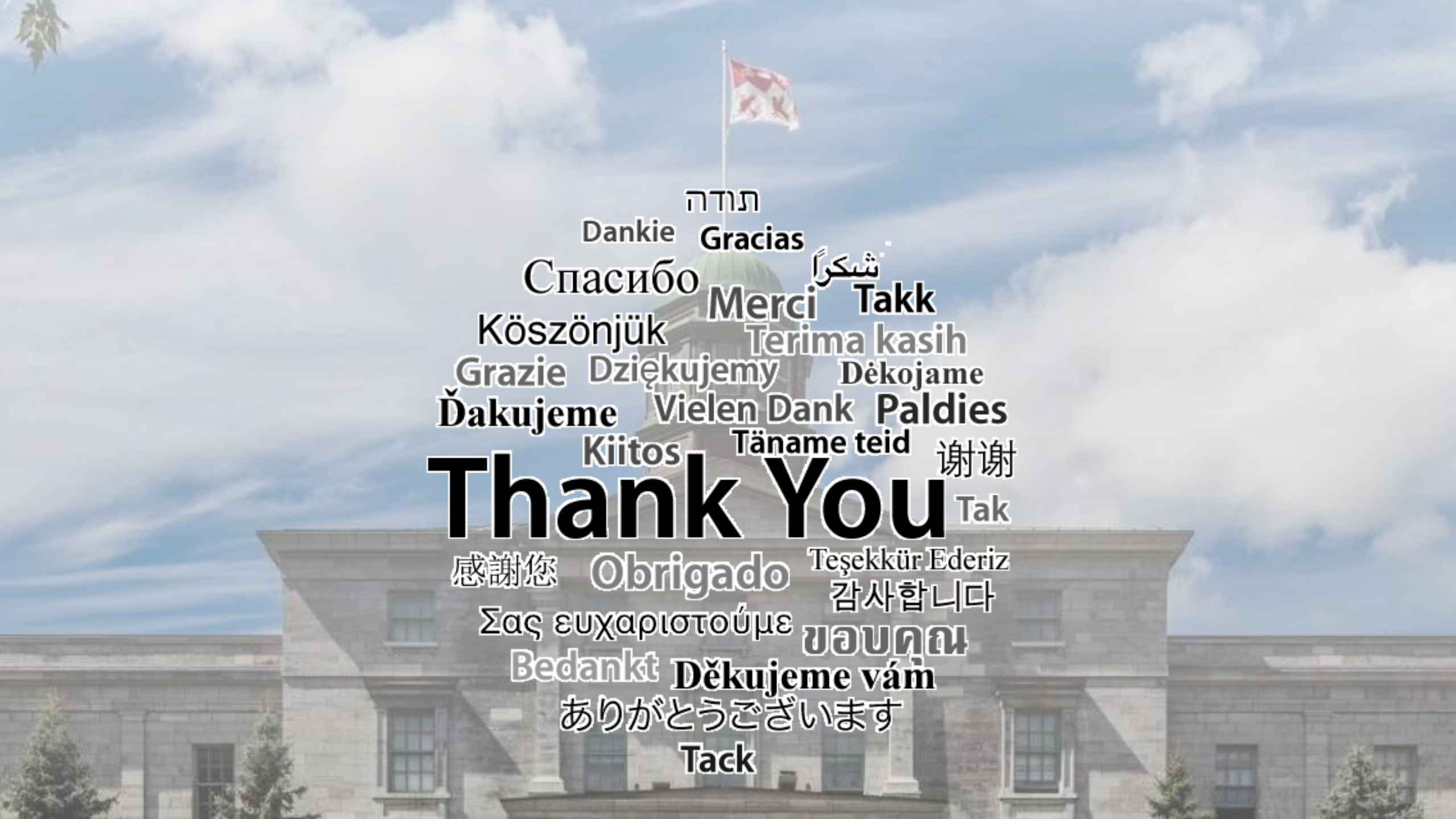
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Dankie
Gracias
Спасибо
شكراً
Merci
Takk
Köszönjük
Terima kasih
Grazie
Dziękujemy
Dėkojame
Ďakujeme
Vielen Dank
Paldies
Kiitos
Täname teid
谢谢
Thank You
Tak
感謝您
Obrigado
Teşekkür Ederiz
감사합니다
Σας ευχαριστούμε
ขอบคุณ
Bedankt
Děkujeme vám
ありがとうございます
Tack

References

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