

Return-to-Work Management in A Palm Oil Harvester with Occupational Keratitis from A Foreign Body: A Case Report

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Abstract

Introduction: Effective return-to-work (RTW) management is essential for minimizing workplace disruptions and supporting functional recovery following occupational injuries. In physically demanding sectors such as palm oil harvesting, eye injuries—particularly occupational keratitis caused by plant debris—can lead to temporary visual impairment and reduced ability to perform essential job tasks.

Objective. This case report demonstrates how structured RTW coordination, involving interprofessional collaboration and employer engagement, facilitates safe workplace reintegration and prevents reinjury.

Methods: We report the case of a 27-year-old male palm oil harvester in Indonesia who developed left-eye keratitis after removing fogged protective goggles during harvesting. He was treated by an ophthalmologist, while a hospital-based occupational medicine specialist—acting in place of an internal occupational health unit—evaluated his work capacity, recommended temporary duty adjustments, and collaborated with company management to implement them.

Results: Initial treatment consisted of topical antibiotics and ocular lubricants. The patient was deemed temporarily unfit for regular duties and was advised to perform low-risk tasks. Although the employer's response was initially delayed, collaboration with the occupational physician facilitated a phased return to work through modified duties and ongoing monitoring. Full visual recovery was achieved within 17 days, after which the patient resumed regular tasks without restrictions. At 3.5 months post-injury, he remained asymptomatic and fully fit for work.

Conclusions: Successful return to work (RTW) following occupational keratitis requires early and structured coordination between ophthalmologists and occupational medicine specialists, as well as active involvement from the employer. Temporary job modifications, functional capacity assessments, and ongoing monitoring are essential to ensure a safe reintegration process and to maintain productivity. In the absence of on-site occupational health services, hospital-based occupational medicine specialists play a vital role in conducting fitness-for-work evaluations and recommending appropriate workplace accommodations.

Keywords: occupational keratitis, return-to-work, palm oil harvester, occupational medicine, work modification

Abstrak

Pendahuluan: Manajemen kembali bekerja (RTW) yang baik sangat penting untuk mengurangi gangguan di tempat kerja dan membantu pemulihan setelah cedera akibat pekerjaan. Di bidang yang membutuhkan fisik, seperti panen kelapa sawit, cedera pada mata, terutama keratitis akibat sisa tanaman, dapat membuat penglihatan terganggu sementara dan mengurangi kemampuan pekerja.

Tujuan: Laporan ini menunjukkan bahwa kerja sama yang terencana, melibatkan berbagai profesi dan partisipasi dari perusahaan, membantu karyawan kembali bekerja dengan aman dan mencegah cedera baru.

Metode: Kami melaporkan kasus seorang pria berusia 27 tahun yang bekerja sebagai petani kelapa sawit di Indonesia. Dia mengalami masalah pada mata kirinya setelah melepas kaca mata pelindung yang berkabut saat memanen. Dia dirawat oleh dokter mata, dan seorang dokter spesialis kedokteran kerja di rumah sakit menilai kemampuannya untuk bekerja. Dokter ini merekomendasikan penyesuaian tugas sementara dan bekerja sama dengan manajemen perusahaan untuk menerapkannya.

Hasil: Perawatan awal yang diberikan adalah antibiotik dan tetes mata. Pasien dinyatakan tidak bisa melakukan tugas biasa sementara waktu dan disarankan untuk melakukan tugas yang lebih aman. Walaupun perusahaan merespons lambat pada awalnya, kerja sama dengan dokter spesialis kedokteran kerja membantu pasien untuk kembali bekerja secara bertahap. Pasien sepenuhnya pulih dalam 17 hari dan kembali melakukan tugasnya tanpa batasan. Setelah 3,5 bulan pasca cedera, ia tetap sehat dan bisa bekerja penuh lagi.

Kesimpulan: Kesuksesan kembali bekerja setelah masalah mata bergantung pada kerja sama yang baik antara dokter mata dan dokter spesialis kedokteran kerja, serta dukungan aktif dari perusahaan. Penyesuaian tugas sementara, penilaian kemampuan fungsional, dan pemantauan yang berkelanjutan sangat penting untuk memastikan proses kembali kerja yang aman dan produktif. Jika tidak ada layanan kesehatan kerja di lokasi, dokter spesialis kedokteran kerja di rumah sakit memiliki peran penting dalam menilai kemampuan kerja dan merekomendasikan penyesuaian yang sesuai di tempat kerja.

Kata kunci: keratitis pekerjaan, kembali bekerja, pemanen kelapa sawit, kedokteran okupasi, modifikasi kerja

Introduction

Background

Return-to-work (RTW) management is a critical element in the rehabilitation and reintegration of workers following occupational injuries. In labor-intensive sectors such as palm oil harvesting, ocular trauma—particularly occupational keratitis due to foreign bodies like palm debris—can substantially impair visual function and work capacity, leading to pain, blurred vision, photophobia, and reduced productivity.¹⁻³ Palm oil plantation workers are regularly exposed to flying debris and sharp tools during frond cutting and fruit bunch harvesting. Without adequate eye protection, such exposures can easily lead to traumatic ocular injuries.⁴

Epidemiological evidence from Southeast Asia shows that occupational ocular trauma disproportionately affects young male workers, especially in agricultural and industrial sectors where the use of protective equipment is often lacking. A study conducted at a tertiary hospital in Malaysia found that most eye injuries among agricultural workers involved sharp or blunt objects, resulting predominantly in closed-globe trauma. Many of these cases presented with poor initial visual acuity and required prompt clinical management to avoid prolonged absenteeism or long-term visual impairment.⁵

Effective clinical management of occupational keratitis necessitates interdisciplinary collaboration. Ophthalmologists play a central role in diagnosing and treating corneal injuries to restore visual function, while occupational medicine specialists evaluate work demands, assess fitness to return, and implement individualized RTW plans. This coordinated approach ensures that clinical recovery progresses in parallel with functional work readiness, thereby minimizing the risk of reinjury and supporting safe and sustainable reintegration into the workplace.^{1,3} In Indonesia, this model aligns with the recognized role of occupational medicine specialists in hospitals as frontline providers for RTW assessment and coordination.^{6,7}

In addition to clinical coordination, occupational medicine specialists serve a critical function in engaging employers to implement appropriate workplace modifications. These may include temporary reassignment to lower-risk tasks, provision of suitable personal protective equipment such as protective eyewear, and gradual reintroduction to full workloads. Such

interventions facilitate recovery while maintaining functional productivity and are essential to minimizing the risk of symptom exacerbation or reinjury during the RTW process.¹⁻³

This case highlights the critical role of integrated RTW planning involving ophthalmologists, occupational medicine specialists, and company management in facilitating the safe reintegration of a palm oil harvester following occupational keratitis. Through coordinated clinical care, functional assessment, and workplace collaboration, the process not only ensured full recovery but also minimized the risk of reinjury and supported optimal work performance upon resumption of duties.

Methods

This is a descriptive case report of a 27-year-old male palm oil harvester in Indonesia who developed left-eye keratitis following occupational exposure to palm debris. The patient presented to the emergency department on April 8, 2025, with complaints of blurred vision. The injury occurred the day before while harvesting, after the patient removed his fogged protective goggles, leading to direct ocular exposure to plant debris.^{2,8}

An ophthalmologic examination revealed a corneal infiltrate and reduced visual acuity in the left eye (oculus sinister), consistent with keratitis. Treatment included topical antibiotics—Tobramycin 0.3% (Cendo Tobrosan) four times daily and Ofloxacin 0.3% (Cendo Floxa) six times daily—alongside ocular lubricants (Cendo Protegenta) six times daily. The patient was referred to a hospital-based occupational medicine specialist for a work capacity assessment and return-to-work planning in accordance with Indonesian occupational medicine protocols.^{2,6,7,9}

The patient's regular duties involved harvesting and transporting fresh fruit bunches (FFB) using tools such as sickles and harvesting hooks, classified as high physical demand (METS 8.0). Required PPE included helmets, gloves, goggles, and boots. Given the temporary visual deficit, he was declared unfit for regular duties and prescribed medical leave (April 8–11). A recommendation for reassignment to low-risk, non-exposure-prone tasks was issued.^{4,10-13}

Written informed consent was obtained from the patient for the publication of this case report. Institutional approval for publication was also obtained from the hospital administration.

Results

On the fourth day of follow-up, visual acuity improved to 6/7.5. Although the employer initially did not act on the RTW recommendations, the occupational physician continued coordination and advised temporary reassignment to low-risk tasks, excluding harvesting and seedling activities.^{2,14}

By the end of the second week, visual acuity returned to 6/6. Clinical treatment was concluded without complications, and regular duties were resumed. Continued monitoring was advised per the company's RTW protocol.^{2,15} At 3.5 months post-injury, the patient remained symptom-free with stable vision and no functional limitations. He was declared fully fit to work by the occupational physician. No permanent impairment or disability was observed.^{2,6,7,16}

Discussion

This case underscores the value of structured RTW management for occupational keratitis in palm oil workers. Visual impairment due to palm debris can severely affect the ability to perform tasks requiring depth perception, hand-eye coordination, and precision. A multidisciplinary approach was essential: the ophthalmologist provided prompt clinical care, while the occupational medicine specialist translated clinical status into job-fit recommendations and liaised with management.

The initial lack of employer response delayed implementation of task modifications. However, continued engagement by the occupational medicine specialist resulted in eventual reassignment. This coordination ensured recovery and minimized reinjury risk.¹⁵

In the absence of an internal occupational health unit, the hospital-based specialist played a vital role in fitness-for-work assessments and RTW facilitation. This reflects the structure of occupational medicine services in Indonesia, where hospital-based providers support companies in managing work-related injuries and illnesses.^{6,7,15,17}

This case aligns with international evidence showing that RTW outcomes improve when clinical, occupational, and organizational components are aligned. Coordinated care, phased reintegration, and active employer involvement enabled full recovery and safe resumption of duties.

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